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The University of North Carolina at Greensboro ED.D. 1985

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VALUE ORIENTATIONS OF ELEMENTARY CLASSROOM TEACHERS TOWARD PHYSICAL ACTIVITY FOR THEMSELVES AND FOR THE CHILDREN THEY TEACH

by

PATRICIA ANN AKERS

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro
1985

Approved by

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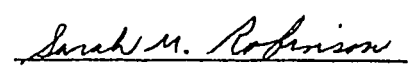
Dissertation Adviser 
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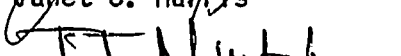
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Date of Final Oral Examination

AKERS, PATRICIA ANN, Ed.D. Value Orientations of Elementary Classroom Teachers Toward Physical Activity for Themselves and the Children They Teach. (1985) Directed by Dr. Sarah M. Robinson. 192 pp.

Attitudes of elementary teachers were examined toward physical activity for themselves and for the children they teach. Using information developed from the Purpose-Process Curriculum Framework, perceived values were measured by responses from two inventories, and from personal interviews.

In Phase One, 150 teachers of grades K-5 were given two inventories, a SELF-Personal Purposes and Meanings in Movement Inventory and a CHILD-PPMMI. Both inventories were completed by 120 teachers. In Phase Two 10 teachers from a selected school were interviewed for comments on their responses.

Mean scores were calculated for the 22 purpose statements on each inventory according to the following independent variables: 1) age, 2) grade taught, 3) years of teaching experience, and 4) number of preparatory courses in physical education. A Pearson Product Moment Correlation was used to show the relationship between the items of the inventories; the two inventories were shown to be distinct assessments. Profiles for the ten interview teachers were developed from the inventory responses and interview data were content analyzed to identify factors that teachers reported to influence their value orientations toward physical activity.

The following conclusions were drawn:

1. Teachers do value movement, more highly for children than for themselves.

2. Teachers can differentiate between their attitudes about the purposes of physical activity for themselves and the purposes of physical activity for children.

3. Teachers value physical activity in interdisciplinary learning.

4. All of the movement purposes of the Purpose-Process Curriculum Framework were valued for children.

5. The purpose aspect of the Purpose-Process Curriculum Framework was a viable tool for discussion with the elementary classroom teacher.

ACKNOWLEDGEMENTS

The author wishes to express sincere gratitude and appreciation to Dr. Sally Robinson, for her patience and encouragement in guiding this investigation. Thank you for allowing me to experience the excitement of the "process" as well as the results.

Gratitude is also expressed to the other members of the doctoral committee: Dr. Kate Barrett, Dr. Janet Harris, Dr. Thomas Martinek, and Dr. Richard Weller.

Statistical consultation for Phase One of this research was provided by the Statistical Consulting Center, Department of Mathematics, University of North Carolina at Greensboro.

Appreciation is expressed to the administration of Davidson County Community College, Lexington, N.C. for the opportunity to use the word processing system for the preparation of this document and especially to Dale O'Bryant, director of the computer center, and Vicki Bennett and Mary Hughes, who cheerfully gave of their time in teaching me about the system.

A very special thanks goes to Dottie Burkhart, Ann Holbrooks, and Reba Thornburg for their advisement and constant encouragement. They never allowed me to lose sight of my goal.

To my parents, John and Cora Akers, I say "Thank you" for believing in me and teaching me to strive always for the highest ideals.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

> The beliefs, feelings, and assumptions of teachers are the air of a learning environment. They determine the quality of life within it. (Postman & Weingartner, 1969, p. 33)

The idea underlying this conviction is that it is vital to the learning process to realize that teachers' attitudes toward subject matter can and do affect the professional role they play. Attitude is vitally important in the elementary school situation because the classroom teacher is not usually a subject matter specialist. The role of teaching physical education in the elementary schools generally is shared by the elementary classroom teacher and the physical education specialist. However, due to budget cutbacks in many educational systems, this role of providing quality programs in physical education has been shifted mainly to the classroom teacher. In North Carolina, all classroom teachers are responsible to a large degree for instructing in physical education; only the percentage of the responsibility held by the classroom teacher varies with each school system (North Carolina State Board of Education, telephone conversation with Dr. A. Proctor, July 26, 1983).

Reviews of the literature on the subject show that attitude studies concerning the teachers' perceptions of their roles in teaching physical education are scarce (King & Baker, 1983; Wilson, 1982). In the few studies that have been done, the authors have attempted to list the categorical variables that seem to influence teachers' attitudes. Such variables as age, sex, grade taught, years of experience, availability of

facilities and equipment, aid of a certified physical education specialist, knowledge of the subject matter, and supportive attitude of the administration were identified through checklists, questionnaires, and the completion of attitude scales (Lautenbach, 1957; Phillips, 1967; Nokken, 1971; Haynes, 1973). No attempt was made by these researchers to try to discover how or why these variables influenced the teachers' attitudes and/or role perceptions. The research strategies presented were limited to quantitative, descriptive formats in these earlier studies.

Apparently, previous research has not dealt directly with the relationship between teachers' own attitudes about physical activity and their attitudes about the purpose of physical activity for children. In the present study the investigator identified particular value orientations that classroom teachers hold about physical activity for themselves and for the children they teach. Not only have the teachers' attitudes toward physical activity been measured, but also personal explanations for these attitudes have been obtained through interviews with selected teachers.

Theoretical Guide

The Purpose Process Curriculum Framework (PPCF) was chosen as a theoretical guide. The PPCF was first conceptualized as a model to identify the body of knowledge in physical education, beginning with the early 1970's and published by Jewett and Mullan in 1977. Research completed in the past 10 years gives credibility to the expansion of the purpose aspect of the model as a tool for curricular decision making (Chapman, 1974; LaPlante, 1973; Norton, 1982; Pasternak, 1981). Because one part of the framework focuses on purposeful decision making, the

authors of the framework recommend that it can be used to guide decisions relative to selection, organization, and evaluation of content (Jewett & Mullan, 1977, p. 5). This current investigation has added to the existing knowledge about the relationship between teachers' personal attitudes and their classroom decisions. This new area of knowledge has been gained by seeking new information that relates the degree to which elementary classroom teachers value the 22 purposes of the Purpose Process Curriculum Framework as personal meanings for themselves and as purposes for educational outcomes for children. A tacit assumption is held that value orientations bear an important relationship to teacher decision-making beliefs and patterns (Berman, 1967; Brubaker, 1970; Rokeach, 1973).

The Personal Purposes of Movement and Meaning Inventory (1982) was adapted to tap two sources of meaning from the classroom teachers about physical activity. When the stem "I move" is used, the instrument is being used to measure personal meaning of physical activity that teachers choose for themselves (SELF-PPMMI). Changing the stem to "Children move" taps the purposes that teachers feel should be important outcomes for children from physical activity (CHILD-PPMMI). The conceptual flexibility of the proposed use of the tool has allowed the investigator to tap attitudes from two philosophical role perspectives: "for self" and "as a teacher." One represents a view of self-meaning by the individual from the humanistic perspective (Jewett, 1977). The other use is the prescription of student outcomes from the Tylerian perspective of asking what should be the objectives (purposes) that are important for teachers to emphasize for children (Tyler, 1949).

Statement of the Problem

The purpose of this study has been to identify the value orientations that elementary classroom teachers hold about physical activity for themselves and for the children they teach. The study has been completed in two phases, Phase One: Administration of the Inventories and Phase Two: Interviewing of Teachers. The following framing questions have been addressed in Phase One:

1. How do classroom teachers rate the purposes of physical activity for themselves?

2. How do classroom teachers rate the purposes of physical activity for the children they teach?

3. Do the variables of age, gender, grade taught, years of teaching experience, number of preparatory courses in physical education, and the aid of a specialist relate to the classroom teachers' rating of the purpose statements relative to physical activity for themselves?

4. Do the variables of age, gender, grade taught, years of teaching experience, number of preparatory courses in physical education, and the aid of a specialist relate to the rating of the purpose statements they feel are most important for the children they teach?

5. Do classroom teachers hold the same attitudes about physical activity for children as they do for themselves?

Framing questions related to Phase Two are as follows:

1. What are the variables that classroom teachers perceive as influencing their attitudes toward physical activity for themselves and for the children they teach?

2. How do classroom teachers explain the results from their inventory profiles?

Definition of Terms

The following definitions assisted in the clarification of this study:

Value orientation toward physical activity--An attitude held by elementary classroom teachers about the purposes of physical activity. Conception of attitude in this sense encompasses the cognitive, affective, and behavioral feelings of an individual.

Physical activity--Any movement experience that individuals choose to participate in that has personal meaning to them (Nixon & Jewett, 1980).

Elementary classroom teacher--A teacher whose responsibility it is to conduct the self-contained classroom duties.

Purpose-Process Curriculum Framework--A model for curricular decision making. This curricular model is composed of three key concept aspects: INDIVIDUAL DEVELOPMENT, ENVIRONMENTAL COPING, AND SOCIAL INTERACTION; seven subconcepts: Physiological Efficiency, Psychic Equilibrium, Object Manipulation, Spatial Orientation, Communication, Cultural Involvement, and Group Interaction; and 22 purpose elements (Jewett & Mullan, 1977).

Movement purposes of physical activity--Personal meanings of physical activity as identified by the Purpose-Process Curriculum Framework (Jewett & Mullan, 1977).

PPMMI (Personal Purposes and Meanings in Movement Inventory)--An inventory composed of a series of belief statements purported to measure a person's value orientation toward the purposes of physical activity (Seminar Group, personal conversations, University of Georgia, 1983).

Decision Making--The ability of teachers to select purposes and goals of physical activity for themselves and the children they teach.

High, Medium and Low Ratings--Scores of one, two, and three on the inventory are interpreted to represent a "low" rating of value orientation. Scores of four, five and six show a "medium" rating, and scores of seven, eight and nine indicate a "high" rating.

Assumptions

Under the conditions of the investigation planned, the following assumptions were made:

1. Teachers, like other adults, hold value orientations toward physical activity.

2. Teachers perceive the need for physical activity for children according to some value structure.

3. The purpose statements in the inventories are sufficiently valid to be used to assess the classroom teachers' expression of value preferences in physical activity both for themselves and the children they teach.

4. The selection of teachers from only one school for the interview phase of the study helped control the influence of such research variables as availability of facilities and equipment for physical education, guidance of a certified physical education specialist, attitudes of administrative personnel, and socioeconomic status of the student population.

5. All semantic difficulties associated with the PPCF and inventories developed from it are accepted as a limitation.

Scope

Any attempt to understand or interpret this study must operate within the following limitations:

Phase One: Administration of Inventories to Teachers

Subjects for this study were elementary classroom teachers in grades K-5 in the High Point, North Carolina city school system. From the entire population of 150 teachers who volunteered to participate, 120 completed inventories were obtained.

Phase Two: Interviews With Teachers

School Selection. A school was chosen from the total population of 10 elementary schools to become the setting for the interviewing of case study teachers. The supervisor of physical education from the school system assisted the investigator in narrowing down the schools for selection. Criteria used to choose the school were (a) aid of a state-certified specialist in physical education, (b) a geographically typical student body, and (c) a positive attitude of the principal toward physical education.

Teacher Selection. All teachers from the selected school were invited to participate in the interview phase. Ten of the 16 teachers at the school agreed to participate.

Significance

Kirschenbaum (1977) stated that the valuing process contains five dimensions: thinking, feeling, choosing or decision making, communicating, and acting (p. 10). By this hierarchy one might wonder if those researchers who observe teachers' actions and seek to infer their thinking from their behavior, are beginning their questioning at the

logical end of the valuing process chain. The present study focuses on the initial phases of the valuing process--what the teachers think and feel about what they do. Results obtained will help researchers to understand and explain teacher behavior from a new and enriched perspective as reflected by the personal experiences of the teacher.

Deeply embedded in teacher behavior research is the assumption that when teachers are aware of their own values, they are able to make better choices (Berman, 1967). Identification of the purposes that teachers value can help provide structure for defining curricular goals, since improvement strategies suggest that these goals are to be established according to desired priorities (Jewett & Mullan, 1977, p. 5). The knowledge of the basis for the selection of purposes by classroom teachers for children in physical education programs is a key to curricular improvements in the field. The narrative of personal meanings reported from teachers toward physical activity for themselves and for the children they teach will help teachers themselves develop more realistic curricular experiences. Jersild (1955) expressed the feeling that in order to help others teachers must know themselves.

The format of this research is an appropriate framework for identifying concerns that classroom teachers have about the factors that influence their attitudes about physical education for children. Identification of these concerns can generate richer inservice programs for these professionals. A similar research line has been followed to establish teacher concerns about the individualized physical education program (Knowles, 1981).

Insights gained from the interviews with the teachers provide new information relative to the validity of the 22 purpose statements in the PPCF. These purpose statements have never been subjected to systematic use with a population of elementary classroom teachers.

CHAPTER II

REVIEW OF LITERATURE

Three related areas were examined in a review of the literature: (a) the role of the elementary classroom teacher in teaching physical education, (b) the nature of attitudes, and (c) the Purpose Process Curriculum Framework. The literature concerning the role of the classroom teacher in teaching physical education focused on the general attitudes of professionals toward the classroom teacher's role, the attitudes of classroom teachers, and the organizational teaching patterns used in elementary schools. Material dealing with the nature of attitudes focused on the definition of attitude, the components of attitude, and the formation of attitudes. The organization of the Purpose Process Curriculum Framework is discussed with emphasis on the purpose dimension, and research is presented which utilized the PPCF to identify an individual's personal purposes for moving.

The Role of the Elementary Classroom Teacher in Teaching Physical Education

The Professional Points of View

On this topic authors debate the question of who is the better teacher of physical education at the elementary school level: the classroom teacher or the specialist (Donnelly, 1958; Phillips, 1967; Vannier & Gallahue, 1978). Supporters on both sides of the issue explore the problem of the preparation and willingness of the classroom teacher to take responsibility for physical education.

According to Dauer and Pangrazi (1981) the role teachers play has a dual nature:

> . . . first, as a catalyst of action that directs and guides children's efforts toward expected outcomes and, second, as a leader who provides a teacher image that projects desirable learning which is frequently measured in terms of personality, attitude, and behavior. (p. 41)

Phillips (1967) suggested that "the effect the teacher has on the learning process is frequently measured in terms of personality, attitude, and behavior" (p. 88).

Brophy and Good (1980), teacher behavior researchers, stated that if teachers feel good about certain areas of teaching, they are not hesitant in instructing that area. Many classroom teachers at the elementary level avoid teaching physical education out of fear that it is something very technical for which they are untrained (LaSalle, 1937; Pearson, 1958; Bucher & Reade, 1971). Also, George Cross (1980) an elementary physical education coordinator, suggested in his book Classroom Teachers' Guide for Elementary Physical Education that classroom teachers are assigned duties for which they may not have been adequately prepared (p. vii). Helen Fabricius, (1965) another elementary coordinator, expressed this feeling about teachers' preparation:

> . . .a classroom teacher is left on her own to try to do her best in an area of education where she feels inadequate and where she knows little except what her own experience as a pupil has taught her. (p. 3)

Margie Hanson, elementary consultant to the American Alliance for Health, Physical Education, Recreation, and Dance, introduced the problem of who is better qualified to teach physical education, the classroom teacher or the specialist. By pointing out that lack of funds mandated that the classroom teacher be primarily responsible, she seemed to

suggest that the point is moot. With this suggestion in mind, the attitude of the classroom teacher is seen as increasingly important. Physical education authors and educators Vannier and Gallahue expressed the opinion that "it is imperative that the person selected to teach physical education be the best one available" (1978, p. 62). They went on to present both sides of the frequently posed question of "who should teach physical education, the classroom teacher or the physical education specialist?" They explained that some educators believe that the classroom teacher can best guide children into desirable physical and social growth patterns by observing how they play. Those educators who favor the specialist, they contended, feel that children learn at a faster rate when taught correctly by a professionally prepared physical education specialist. Also, physical educators and authors, Elliot, Anderson, and Laberge asserted the position that the classroom teacher "is better suited to teach physical education, because they are aware of the growth and development patterns of the children" (1978, p. 40).

A possible compromise and solution for the debate on who should teach physical education at the elementary level has been suggested in a position paper by the American Alliance for Health, Physical Education, Recreation, and Dance, which emphasizes this guideline:

> . . . when classroom teachers teach physical education it is imperative that they be provided with regular leadership and guidance from resource people who are qualified by education and experience in elementary school physical education . . .. (1981, p. 5)

However, according to Schurr (1980), even this approach may be impractical and financially impossible.

Pearson (1958) suggested that the classroom teachers' ability to assume the role of teaching physical education is hampered by some major internal problems. These problems include "understanding program content, planning short term goals, measuring physical performance, and using facilities" (p. 20). All stem from the lack of proper professional preparation.

James Humphrey, physical educator and author, in discussing the role of the classroom teacher in teaching physical education, emphasized the importance of "teachers recognizing that individual differences exist among teachers as well as children and that some of these differences will influence their teaching" (1980, p. 86). For this very reason, teachers should be aware of their own values toward physical activity and the influence these might have on their teaching. Other physical educators and authors agree. Halsey and Porter (1963) pointed out that "the climate of any classroom depends on the personality and ability of the teacher" (p. 98). Humphrey said that "more attention is being focused on the potential value of physical education to the total development of children" (1980, p. 10). He implied that since classroom teachers shoulder a lot of the responsibility for the teaching of physical education, more stress should be placed on helping them learn more about their own values and abilities in that area.

The Teachers' Points of View

There is a scarcity of research on the attitudes of the actual classroom teacher toward teaching physical education. Previously published studies have been descriptive in nature and usually employed surveys to collect data rather than reporting direct discussions with teachers. The following studies are typical.

Donnelly (1958) used a checklist to ask how classroom teachers felt about the physical education program. The survey of 138 teachers completed more than 25 years ago, reveals the following conclusions:

1. An overwhelming majority of these teachers felt that they do have responsibility for the physical education program for their children.

2. A great majority felt that, even though they want the help of a specialist in physical education, they do not want the specialist to teach the children all the time. The teachers want to teach them physical education too!

3. The vast majority felt that recess or unsupervised play is not enough for children but the number drops slightly when the question is asked about the daily period of physical education.

4. A vast majority felt the need for specialist help on a regular basis and do not want a "consultant" to wait upon an invitation or request.

5. Almost two-thirds of these teachers expressed needs for some kind of curriculum guide to carry on their programs. (p. 80)

A more structured approach to the question of teacher opinion was undertaken in Phillips' dissertation in which she explored variables such as sex, age, grade taught, and years of teaching experience. Phillips (1967) investigated teachers' perceptions of their role in teaching physical education. The purpose of the study were these:

1. To examine the classroom teachers' attitudes toward physical education.

2. To determine how the classroom teacher perceives his role in teaching physical education.

3. To discover whether there is any relationship between perception of role and personal characteristics of teachers. (p. 4)

She developed an inventory to record the data. The purposes of the inventory were to determine the favorable and unfavorable attitudes toward physical education and to determine the classroom teacher's perception according to various categories of personal data such as age, sex, grade taught, years of teaching experience, and present teaching arrangement. The following conclusions regarding the classroom teacher's perceptions of his role in teaching elementary physical education were drawn in 1967:

1. Classroom teachers, in general, tended to regard elementary physical education as a very important and essential factor in in the total school curriculum.

2. It appeared that most classroom teachers were consistent with alternate positive and negative replies to matched statements, indicating that teachers, in general, clearly perceived their role in teaching elementary physical education.

3. An overwhelming majority of the classroom teachers showed favoralbe perceptions to most statements which described the role of physical education programs. Only in the area of scheduling was there any degree of disagreement.

4. Classroom teachers expressed differing opinions regarding the role of the teacher and the physical education specialist.

5. It appeared that classroom teachers who were involved in physical education programs tended to show more favorable attitudes toward elementary physical education than did the elementary classroom teacher who did not have any teaching responsibility.

6. It appeared that younger teachers (up to 35) and older teachers (over 50) showed more favorable attitudes toward elementary physical education than did the middle age group (36-49).

7. Those teachers with 1-10 years and over 30 years of teaching experience tended to show more favorable attitudes toward elementary physical education than did the teachers with 11-30 years of service.

8. Sex and grade level did not appear to influence, to any great extent, the positive and negative responses. The females tended to be slightly more favorable than the males. Teachers in grades 1-3 tended to be slightly more favorable in their responses than teachers in grades 4-6. This observation may be explained in part by the fact that a majority of the classroom teachers, teaching their own physical education, were teaching grades 1-3. The physical education specialists were found more frequently in grades 4-6.

9. A disturbing, yet puzzling finding, was that a vast majority of teachers disagreed that the physical education specialist should serve mainly as a resource person. If the interpretation of the word "resource" person meant a person who offered advice but remained detached from the program, then the percentage of disagreement might be understandable. However, if the term referred to being a person who assisted, guided, and in most ways served in a cooperative role, then the classroom teachers did not accept their role as being one of a combined effort with the physical education specialist. This would indicate either a lack of understanding, or an unwillingness on the part of the teacher to assume some responsibility for the teaching of physical education.

10. It appeared that personal experiences in physical education throughout the respondent's school years, tended to affect attitudes and perception of role in teaching elementary physical education. (pp. 94-96)

A more current study to ascertain relationships between feelings of competency toward teaching physical education and personal background was conducted by Nokken in 1971. Nokken developed an instrument to categorize elementary classroom teachers on the basis of their feelings of personal adequacy toward teaching physical education. In addition, he administered a survey to identify personal backgrounds and characteristics of teachers that might be related to effectiveness in teaching physical education. His sample was limited. Nokken included the following contrast variables in his study: (a) current personal

characteristics such as age, sex, and number of children in the class; (b) personal and educational background, and (c) current educational environment (whether or not they had a specialist). The following conclusions were noted:

1. Elementary teachers believe in the value of physical education for students but support the need for specialists in the teaching role.

2. College experience embracing methods of physical education, general education activity experiences, and extra-curricular activity related to physical education enhance self-concepts regarding ability to teach physical education.

3. Teacher age is a factor in desire and ability to teach physical education at the elementary school level.

4. There is an advantage in having men teach elementary physical education, because in general they have more interest in physical education.

5. Collegiate programs need to strengthen preparation courses to include competency in stunts, tumbling apparatus, and track and field. These activities are the basis of fundamental movement thus they are important in the program. (pp. 50-52)

The studies of both Phillips and Nokken found that age, sex, and professional preparation are important factors in sound attitudes toward physical education.

A more extensive study was conducted in 1973 by Haynes to compare teacher attitudes, opinions, and self-ratings between classroom teachers in North Carolina elementary schools who had the assistance of a specialist and those who did not. He employed a survey technique consisting of four parts. Part One was a check list used to gather background information relative to teacher characteristics such as age, sex, teaching experience, grade taught, and teacher preparation in physical education. Part Two utilized three scales from the Attitude Toward Physical Activity Inventory developed by Gerald Kenyon: aesthetic,

health and fitness, and social. Part Three of the survey package was an instrument adapted from Nokken's study, the Physical Education Professional Questionnaire for Classroom Teachers, which measured attitudes, opinions, and self-ratings toward physical education. Part Four was an open-ended question asking classroom teachers to express problems they encountered in teaching physical education. Data were received from 3,796 female classroom teachers and 205 male classroom teachers. Selected conclusions from the study include the following:

1. There was little evidence to indicate that in-service assistance, provided for classroom teachers in North Carolina elementary schools by co-ordinators or specialists, enhanced teacher attitudes and self-ratings relating to physical education.

2. School size was not an important factor in determining teacher attitudes relating to physical education.

3. Comparisons of attitudes and self-ratings in relation to certain characteristics with the individual teacher as the unit of analysis generally favored: male respondents; younger, less experienced teachers; classroom teachers with extensive preparation; and primary grade teachers.

4. The findings concerning problems related to instruction in physical education were interpreted to mean that due to the lack of adequate facilities and equipment, the limited teacher preparation and in-service assistance in the subject, and other problems associated with teaching conditions, classroom teachers in North Carolina elementary schools have found it very difficult to provide adequate instruction in physical education. (p. 32)

Haynes' study concurred with Phillips and Nokken that attitudes of elementary classroom teachers toward physical education are influenced by sex, grade taught, age, and professional preparation. Haynes recommended that studies be conducted to investigate further the role of the classroom teacher in teaching physical education in the elementary school.

Organizational Patterns of Teaching Physical Education in the Elementary School

Although organizational patterns vary among school systems, curriculum specialist Ragan & Shepherd (1977) and physical educators Dauer and Pangrazi (1981) noted these six patterns as those most often implemented:

1. Self contained where the classroom teacher has all the responsibility and there is no consultant help.
2. Consultant help is available, but classroom teachers still have the major teaching responsibility.
3. Specialists do part-time teaching, once or twice per week; classroom teacher does the teaching the other days.
4. Full time physical education specialist does the teaching with support from the classroom teacher.
5. Special physical education teacher within one of the administrative organizational patterns of departmentalization, platoon, or team does the teaching.
6. Teachers arrange either formally or informally to trade or to combine classes. (Dauer & Pangrazi, 1981, pp. 40-41; Ragan & Shepherd, 1977, pp. 389-390)

Dauer and Pangrazi added another organizational pattern which provided for paraprofessionals to take students to give teachers release time (1981, p. 42f). While most states require physical education , many school systems determine it to be financially impossible to hire full time specialists; therefore, the responsibility for teaching physical education falls on the classroom teacher. In spite of the positions for or against this procedure, this intractable fact emphasizes the importance of the attitudes of classroom teachers toward teaching physical education.

The Nature of Attitudes

Definition of Attitude

A review of the literature produces confusion in the attempt to define the word "attitude." Allport (1935) saw attitude as "a mental and neural state of readiness organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (p. 810). A different view of attitude was expressed by Droba (1933) who stated it is a mental disposition of the human to choose to be for or against something. These early definitions all involve concepts of mental bias and overt action as the basis for their definitions.

Later social psychologists seem simply to expand the above approaches by introducing the concepts of attitudinal systems. Katz (1960) referred to attitude as a "response redisposition" activated by certain stimuli. Krech, Crutchfield, and Ballachey (1962) viewed attitude as a formulation of a system consisting of three components: cognitions, feelings, and actions. The use of attitudes to evaluate an object emerged in the writings of McClintock (1966) who explained attitudes as "predispositions on the part of an individual to evaluate some concept, relationship or object in a positive or negative fashion" (p. 187). Supporting this evaluative concept of attitudes, Rokeach (1968) stated that attitudes are "organizations of beliefs around any object or situation predisposing one to respond in a preferential manner" (p. 112). Of the later expanded approaches, Sherif and Sherif (1969) expressed the most comprehensive definition of attitude by defining it as

> The individual's set of categories for evaluating a domain of social stimuli (object, persons, values, groups, ideals, etc.) which he has

> established as he learns about that domain (in interaction with other persons as a general rule) and which relate him to subsets within the domain with varying degrees of positive or negative effect (motivation-emotion). (p. 212)

Many social psychologists during the seventies stressed the evaluative function of the term attitude which emerged first in 1933 with Droba and again in the mid-sixties with McClintock. Kerlinger (1973) combined the thoughts of the early social psychologists and those of the sixties in his definitions:

> Attitude is . . . an organized predisposition to think, feel, perceive, and behave toward a referent or cognitive object. It is an enduring structure of beliefs that predisposes the individual to behave selectively toward attitude referents. (pp. 495-496)

In the most recent writings, Zimbardo, Ebbesen and Maslach (1977) stated that attitudes consist of satisfactions and dissatisfactions for certain people, groups, situations, objects, and ideas.

Dimensions of Attitudes

Numerous social psychologists suggest that attitudes are made up of three components: (a) the affective, (b) the cognitive, and (c) the behavioral (Bem, 1970; Krech, Crutchfield, & Ballachey, 1962; Rokeach, 1973; Triandis, 1971; Zimbardo, Ebbesen, & Maslach, 1977). The components of attitude were explained by Krech et al. (1962) in this manner:

1. Cognitive--consists of the beliefs of the individual about the object.
2. Feeling component--refers to the emotions connected with the object.
3. Action tendency--includes all the behavioral readiness associated with attitudes. (p.140)

However, Zimbardo et al. (1977) described these components in this way:

1. The affective component consists of a person's evaluation of, liking of, or emotional response to some object or person.
2. Cognitive component has been conceptualized as a person's belief about or factual knowledge of, the object or person.
3. Behavioral component involves the person's overt behavior directed toward the object or person. (p. 20)

Zimbardo included the evaluative factor in describing the components but excluded the readiness concept.

A group of contemporary social psychologists including Sherif and Sherif (1969), Rokeach (1973) and Lemon (1973) attributed motivational value to the term attitude. Sherif and Sherif (1969) also introduced the idea that the three dimensions of attitude may vary in valence and degree of multiplexity. They explain that valence is "the degree of favorability or unfavorability" and that multiplexity is the "number and the variety of the elements or parts making up a component" (p. 141). The authors suggested a consistency among the components of attitude in their valence and in their multiplexity (p. 147).

Attitude Formation

Current literature supports the theory that attitudes are learned (Berman, 1967; Lemon, 1973; Raths, Harmin, & Simon, 1966; McClintock, 1966; Sherif & Sherif, 1969; Triandis, 1971; and Zimbardo, Ebbesen, & Maslach, 1977). Representative of these theorists, McClintock (1966) stated that "culture and the groups to which an individual belongs play a major role in determining his attitude" (p. 188). Sherif and Sherif (1969) suggested that "a very important source from which attitudes are derived is the set of values or norms prevailing in the person's group, social class, institution and his culture" (p. 334).

Social psychologists in the 1950s alluded to the fact that one's experiences, past and present, play an important role in attitude formation. Remmers (1954) included integration, differentiation, shock, and adaptation as processes in attitude formation. Integration is the sum accumulation of one's past experiences. Differentiation is the development of a specific attitude from an attitude of a general nature. Shock defined as unusual, violent, or painful situations can influence attitude development. Adaptation is influence provided by membership groups or reference groups.

Kelman (1958) identified three processes as being important in attitude development: compliance, identification, and internalization. One complies in hopes to gain a positive reaction from others. Identification, like compliance, refers to one's desire to continue a good relationship with others. Internalization occurs when one finds his responses to be congruent with his value system.

Attitudes are the core of the value system. Important to attitude development is knowing the functional role it plays in one's total belief system (Bem, 1970). In the study of teacher behavior (actions), what teachers think cannot be ignored, nor can what they feel be inferred from their behavior (Berman, 1967). Both the cognitive and affective dimensions of attitudes and values must be examined in order to gain a richer perspective of behavior.

Raths, Harmin, and Simon (1966) and Kirschenbaum (1977) have defined valuing processes which parallel the multi-dimensional components of attitude. Raths et al. mentioned that attitudes were value

indicators--a way of saying one is for or against something. They pointed out seven criteria for a value which collectively describe the process of valuing:

1. Choosing freely
2. Choosing from among alternatives
3. Choosing after thoughtful consideration of the consequences
4. Prizing and cherishing
5. Affirming the choice
6. Acting upon the choice
7. Repeating (pp. 28-29)

The first three criteria parallel the cognitive component. Criteri four and five represent an affective component. Criteria six and seven illustrate the behavioral component.

Kirschenbaum (1977) stated the valuing process as having five dimensions: (a) Thinking; (b) Feeling; (c) Choosing; (d) Communicating; (e) Acting. The thinking and feeling dimensions reflect the affective component of attitude; the choosing and communicating parallel the cognitive component, and the acting compares to the behavior component. Values and attitudes seem closely associated. Katz (1960) expressed that "when attitudes are organized into a hierarchial structure, they form a value system" (p. 334).

If something is known about the way a person relates himself to the world of ideas, it may also be possible to say in what way he relates himself to the world of people (Rokeach, 1960, p. 8). How the individual classroom teachers relate to the world of ideas of physical activity is important in understanding how they feel about the purposes of physical

activity for children and may form one component of their decision-making process for the physical education experience.

The Purpose Process Curriculum Framework

Structure of the Purpose Process Curriculum Framework

In the mid-sixties, the Physical Education Division of the AAHPER undertook a project to develop curriculum theory in Physical Education regarding the content of Physical Education (AAHPER, 1967). Some group interactions among physical educators and graduate students led to the development of Purpose Process Curriculum Framework which was culminated in a publication in 1977 by Ann Jewett and Marie Mullan, Curriculum Design : Purposes and Processes in Physical Education-Teaching and Learning. (see Fig. 1). Jewett called the framework "a conceptual framework for curricular decision making in physical education" (1977, p. 1). The expressed philosophical orientation of this framework is in the authors' view a humanistic one. The framework is based on the assumption that the primary concern of physical education is the individual human being moving in interaction with his environment.

The framework consists of two dimensions, purposes and processes. The current study dealt only with the purpose dimension. The structure of the purpose dimension resulted from a logical analysis of the functions of human movement. Jewett and Mullan defined purpose as "a unique way of finding or extending personal meaning through movement activities" (1977, p.5). The purpose dimension is organized around three key concepts, INDIVIDUAL DEVELOPMENT, ENVIRONMENTAL COPING, and SOCIAL INTERACTION (LaPlante, 1972). The three key concepts include seven subconcepts and 22 purpose elements (see Appendix A for the purpose

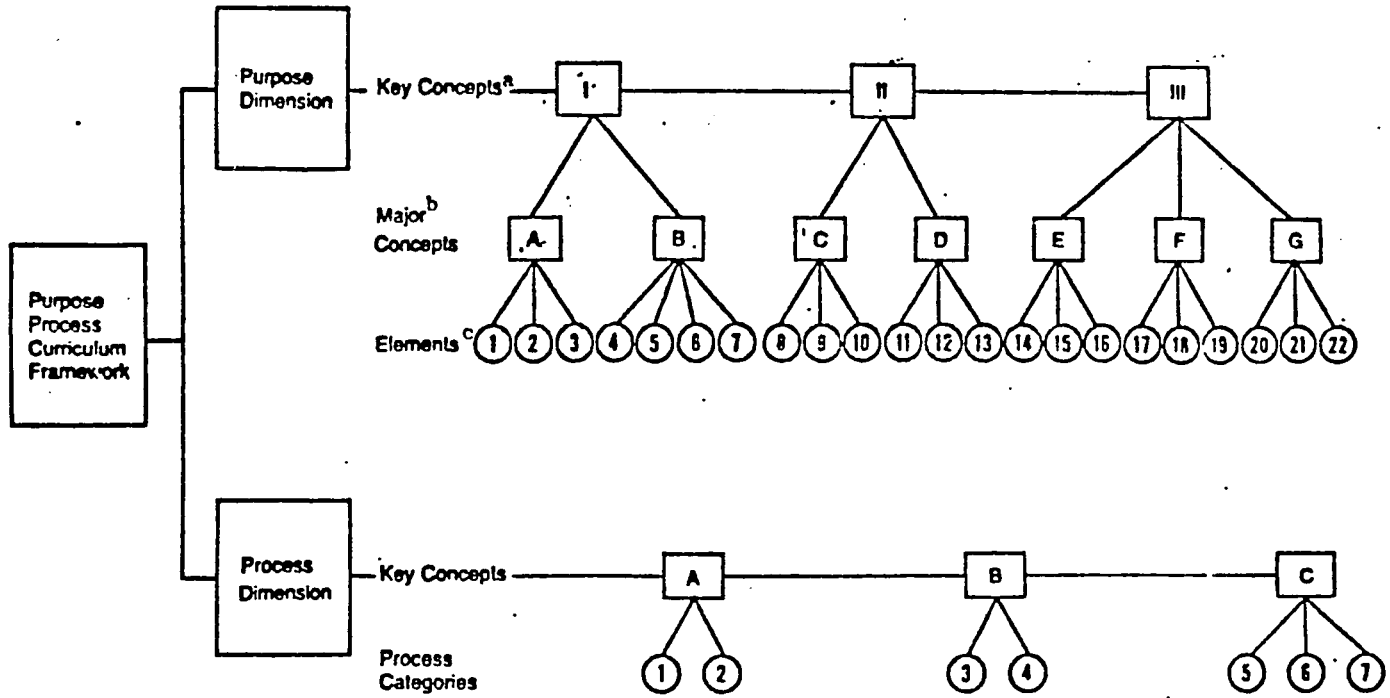

Figure 1 Schematic Representation of Purpose-Process Curriculum Framework

Jones, L. S. (1974) . The construct of body awareness in space as reflected through children's ability to discriminate directions, levels, and pathways in movement. (Doctoral Dissertation, University of Wisconsin), p. 60.

a = I. INDIVIDUAL DEVELOPMENT, II. ENVIRONMENTAL COPING, III. SOCIAL INTERACTION
b = Major sub-concepts of each key concept.
c = The 22 movement purposes.

aspect of the PPCF). A person using this framework focuses on the individual learner and not on predetermined content. Thus, the framework is a "vehicle for analyzing the different ways in which movement can be meaningful to individuals" (Jewett, 1983, p. 95).

Research Utilizing the Purpose Process Curriculum Framework

Many researchers have used the framework as a basis for their studies. LaPlante's research (1973) was the initial study to use the purpose dimension of the PPCF framework and has become a definitive source for research. LaPlante validated the purposes for physical education using a modified Delphi technique. To validate the purpose statements she gathered data from five groups: curriculum theorists, human movement researchers, state physical education directors, teachers of physical education, and city-county supervisors of physical education. She sought to answer two questions:

1. Do the purposes of the PPCF represent the important and necessary knowledge and skills of the discipline of physical education?
2. Can the Delphi technique be an appropriate methodological technique in further physical education curriculum study? (p. 6)

She concluded that the purpose statements had content validity as determined by a panel of judges and that the Delphi technique was an appropriate tool. She suggested that the stem of the tool be changed to "focus on purposes as intentional statements rather than statements of intended student learning outcomes" (LaPlante, p. 145).

In 1974, Chapman developed the MPAI, Movement Purposes Attitude Inventory, using students as data sources for curriculum planning. In this inventory, she reworded the purpose items from the framework in student terms. She found that:

1. Some purposes were valued significantly more highly than others.
2. There were differences between males and females in the perceived values associated with the purposes for moving.
3. There were differences in perceived values of purposes among students in grades seven, nine, and eleven. (Chapman, 1974, pp. 9-12)

By utilizing the semantic differential and a 7-point scale separated by 14 bipolar words, she evaluated the usefulness and the likeability of the purposes as perceived by students. The utility measure represented the cognitive component of attitude and the likeability measure represented the affective component of attitude. Students rated the following purposes as those most liked: relocation, joy of movement, neuro-muscular efficiency, circulo-respiratory efficiency, teamwork, and relationships. The least liked purposes were catharsis, object projection, and maneuvering weight. Purposes perceived as the most useful were circulo-respiratory efficiency, neuro-muscular efficiency, and relocation. Awareness, leadership, competition, cultural understanding, and clarification were perceived as the least useful. Chapman (1974) concluded that when the PPCF was used for decision making in curriculum planning, individual purposes were more useful than the broad concepts (p. 101).

Pasternak (1980) investigated the personal reasons of adults for participating in physically demanding movement activities for the next 20 years of their lives. Using the PPCF, she developed the Future Purposes Inventory (FPI), and administered it to futurists, physical education curriculum specialists, and adult Georgians using the modified Delphi technique to achieve opinion stability. Those purposes ranked as most

important for moving in the individual's future were circulo-respiratory efficiency, atrophy prevention, mechanical efficiency, vigor, aliveness, catharsis, neuro-muscular efficiency, and joy of movement. Challenge, gravitation, and risk-taking were purposes determined to be least important for moving in the future.

To evaluate an individual's personal reasons for participating in fitness activities, Norton (1982) used the PPCF to develop the the Fitness Activities Purposes Inventory (FAPI). Findings of her study resulted in purpose statements being added to the framework. Weight control and attractiveness were added and neuro-muscular efficiency was subdivided into musculo-skeletal efficiency and movement efficiency. Self-integration and self-transcendence were purposes added to the Psychic Equilibrium subconcept.

In a paper presented at the Third Conference on Curriculum Theory in Physical Education in Georgia in 1983, Norton concluded, ". . . in the studies utilizing inventories based on the PPCF purpose statements, similar highly ranked purposes were reported to be circulo-respiratory efficiency, neuro-muscular (musculo-skeletal and movement) efficiency, and joy of movement (enjoyment)" (1983, p. 103). She implied that this conclusion meant that these purposes were important ones to consider in planning physical education curriculum regardless of "age, geographical location, or movement orientation of the population" (Norton, 1983, p. 103).

Using the results of research done with the PPCF, a physical education curriculum group at the University of Georgia composed of graduate administrators, faculty, and doctoral students developed an

inventory to obtain information about individuals' participation for any movement setting. This general instrument is the PPMMI, Personal Purposes and Meanings in Movement Inventory which this investigator has adapted for the current study (see Appendix B). Current research is being done with this inventory to examine attitudes of adults toward physical activity among various types of populations (Ennis, 1982; Kisabeth, 1985a; 1985b; 1985c).

In summary, the PPCF was created to address the question of the content of physical education (AAHPER, 1967). The validity of the framework has been studied through methods of expert editorial reaction and some empirical work involving the responses of participants of differing age levels. In each case the basic definitions from the framework have been used to derive instruments appropriate to the particular population under study. Each instrument and study appears to have been used selectively to modify and modernize the original framework.

In order to follow this research tradition and logic, the investigator spent three days with the people in the curriculum group at the University of Georgia. Information shared through conversations with this seminar group and with Dr. Ann Jewett, author of the PPCF, helped the present investigator understand the process through which the PPMMI evolved. The methods used to design the Akers' adaptation of the PPMMI are described in the next chapter.

CHAPTER III

PROCEDURES

The purpose of this study was to identify the value orientations that elementary classroom teachers hold about physical activity for themselves and for the children they teach. The study was completed in two phases. Phase One was the administration of attitude inventories to a group of 150 teachers to gain a general perspective about the attitudes toward movement purposes of teachers at this level of instruction. In Phase Two selected teachers were interviewed to follow more closely the expressed belief patterns of individuals.

The following questions were addressed in Phase One:

1. How do classroom teachers rate the movement purposes of physical activity for themselves?

2. How do classroom teachers rate the movement purposes of physical activity for the children they teach?

3. Do the variables of age, gender, grade taught, years of teaching experience, background training, and the aid of a specialist relate to the classroom teachers' rating of the movement purpose statements relative to physical activity for themselves?

4. Do the variables of age, gender, grade taught, years of teaching experience, background training, and the aid of a specialist relate to the rating of the movement purpose statements they feel are most important for children?

5. Do classroom teachers hold the same attitudes about physical activity for children as they do for themselves?

Questions related to Phase Two include the following:

1. What are the variables that the classroom teachers perceive as influencing their attitudes toward physical activity for themselves and for the children they teach?

2. How do teachers explain the results from their inventory rating profiles?

The procedures chapter will be presented in four sections: Preliminary Procedures, Phase One: Group Data Collection, Phase Two: Individual Teacher Attitudes, and Procedures for Analysis of Data.

Preliminary Procedures

Review of the literature yielded only one line of adult attitude study based upon the curriculum development literature in physical education. This line of research follows the development of the PPCF (Jewett & Mullan, 1977) and is detailed in Chapter Two. It is reviewed selectively here.

Development and Selection of Instrumentation

Because the focus of the study is the investigation of elementary classroom teachers' attitudes in relation to the purposes of physical activity for themselves and for the children they teach, the Personal Purposes and Meaning in Movement Inventory (see Appendix B) was selected as one tool for data collection. The inventory evolved from previous research done with the Purpose Process Curriculum Framework (LaPlante, 1973; Chapman, 1974; Pasternak, 1981; and Norton, 1982). The PPCF research group seminar at the University of Georgia, used the findings of

the previously cited research to develop the PPMMI-83 in the fall of 1982 (Robinson, unpublished paper, January, 1983). The adult form of the PPMMI-83 was adopted without changes to assess the attitudes of the teachers toward their own purposes in moving (SELF-PPMMI) (see Appendix C).

Another form of the PPMMI inventory was created to fit the needs of the investigator. In order to assess teacher attitudes about children's movement from the teachers' role perspective, the stem for the second tool of the PPMMI was changed to read "Children move to . . . " for the child related inventory (CHILD-PPMMI). Also the directions emphasized the teachers' perspective about activity for children (see Appendix D).

Previous researchers also have used the purpose statements reflected on the inventory in these two ways: (a) as belief statements that the personal meanings movement can have to individuals, and (b) as statements relating to student outcomes. The focus of the two inventories parallels somewhat the utility and likeability scales developed by Chapman (1974). Chapman's utility scale captures the cognitive component of a person's attitude toward physical activity. The present investigator used the CHILD-PPMMI to measure how useful teachers feel these movement purposes are for children. The likeability scale that Chapman used represents the affective component of a person's attitude. The SELF-PPMMI was used by the present investigator to measure the teachers' personal feelings about physical activity.

Pilot Test of Inventories and Reliability Estimates

Because the PPCF derived inventories have never been used with a population of elementary classroom teachers, a pilot study was conducted

to estimate reliability and to test pilot questions. Permission was sought from and granted by the superintendent of schools to do school research in Davidson County, North Carolina (see Appendix E). Ten schools were drawn at random in which these inventories were distributed. Female teachers in grades one, three, and five in these Davidson County schools were invited to participate in the study. Thirty-five of the 65 teachers (54%) volunteered to take the inventories.

To reduce order effects, the SELF-PPMMI was given to half the group, and the CHILD-PPMMI was given to the other half of the group. Three days later each group took the version of the inventory which had not been completed the first time.

To estimate item stability, a retest was given after a 10 day interval. In order to compare item reliability with recent studies using the PPCF-derived PPMMI variations (Norton 1982; Ennis 1984;), reliability was assessed by a repeated measures technique (Baumgartner & Jackson, 1982) and computed using the CREL program, which is a computer program designed to compute the intraclass reliability coefficient (p. 501). For the SELF-PPMMI, item reliability (stability) ranged from .569 to .878. Sixteen of the 22 items yielded a reliability above .750. Only four of the items fell below a .700 value. For the CHILD-PPMMI, item reliability (stability) ranged from .621 to .952, with 19 of the 22 items having a reliability estimate of .800 or greater. Only two items fell below a .700 value. Since the PPCF framework was to be used for discussion and analysis of results, items with reliability less than .700 were retained to keep the framework of the questions in tact. However, the investigator was made aware of a need for caution in the interpretation of findings

related to particular items. Norton (1982) found a high level of independence among PPCF derived items; therefore, no single reliability value is reported for the inventory as a whole. A summary of item reliabilities by movement purpose statements can be found in Appendix F.

Pilot Test of Interviews

Two teachers from the Davidson County teacher sample were drawn at random to pilot the interview techniques and format proposed for Phase Two. The teachers did not have any problems discussing the questions as asked so the interview format and questions were found to be acceptable. The major decisions resulting from the pilot interviews were that the discussion of the SELF-PPMMI and the CHILD-PPMMI profiles generated the type of discussion the investigator hoped to get, and that the scheduled interview length should be at least 75 minutes.

Selection of Subjects

Human Subjects' Review Committee guidelines and procedures at University of North Carolina at Greensboro were followed. Upon human subjects' approval on September 14, 1983 (see Appendix G), permission was obtained from the superintendent of the High Point, North Carolina city schools to visit the ten elementary schools to arrange test protocol with each principal (see Appendix H). All 150 elementary classroom teachers were invited to participate. Letters with consent forms were distributed to each teacher to explain the purpose of the study (see Appendix I).

Phase One: Group Data Collection

Training of Inventory Administrators

In order to reach all subjects in the same time period and from a familiar source, physical education specialists from each school were

asked to serve as inventory administrators. The investigator held a 45-minute preparatory session on September 16, 1983, with the physical education specialists to familiarize the group with the inventory protocol. Inventory packets for each school were distributed to the physical education specialists, and dates of distribution were finalized (see Appendix J).

Administration of Inventories

All 150 teachers in the High Point city elementary schools grades K-5 were invited to participate in the study and were given consent forms. The pilot study indicated that the order in which the inventories were given was not a factor; thus, SELF-PPMMI was given first, followed three days later by the CHILD-PPMMI. Of the 150 teachers invited to participate, 120 completed both inventories which was 80% of the K-5 classroom teachers in the High Point city school system. Physical education specialists gave the inventories to the teachers as a group at the end of the school day and collected each as they finished on both testing days. The investigator picked up the inventories from the principal's office of each school at the end of the testing period, September 26, 1983. Having the physical education specialist give the inventories allowed all teachers to be tested during the same time frame and assured the teachers an environment free from threat or pressure.

Phase Two: Individual Teacher Attitudes

Teacher attitudes are widely assumed to be related to working conditions. Since teacher attitudes can be related to working conditions, Brubaker suggested a need to control for such attitudes in research plans. (Brubaker, 1970).

Selection of a School

The investigator decided that selection of the teachers for Phase Two, the interview phase, should be controlled for the influence of such research variables as availability of facilities and equipment for physical education, guidance of trained physical education specialists, attitudes of administrative personnel, social milieu, geographically typical student body, and student socioeconomic status. It was decided that limiting interviews to a single school would control these factors. The following criteria were used to select the specific school: (a) aid of a specialist certified in physical education (In this school system some of the physical education aides were not state-certified in physical education.), (b) adequate availability of facilities and equipment for physical education (c) a geographically typical student body, and (d) a positive attitude of the principal toward physical education. A discussion with the supervisor of physical education of the High Point City Schools helped to narrow the selection to three schools which seemed to meet the criteria equally well.

Selection of Interview Teachers

All teachers in the three schools were invited to participate in Phase Two, the interview phase of the study. At school A, three teachers volunteered; in school B two volunteered; and at school C 10 volunteered. Therefore, school C was chosen as the interview school. The belief in this decision was reinforced by the fact that all grades, age groups, and levels of years of teaching experience were represented among the 10 teachers who volunteered at school C.

School Visitation

Prior to the interview phase, the investigator visited the school and met individually with the interview teachers to set a date, place, and time for the interviews. During this initial contact, teachers were asked to list the goals (movement purposes) of physical education they felt were most important for the children they taught. Approximately 15 to 20 minutes was spent with each teacher.

Interviews

One interview session was held with each teacher. The length of each interview varied from 50 to 70 minutes and was conducted in the teacher's classroom. All sessions were tape recorded and the same interview format was followed for each teacher (see Appendix J). Certain key questions were asked of all teachers (see Appendix J); however, teacher inventory responses inspired other questions as the interviews unfolded. Each teacher was offered a $10 honorarium.

Procedures for Analysis of Data

Phase One: Group Data Analysis

Data from the inventories were the responses given on the Likert scale which the teachers assigned for each movement purpose statement. The condescriptive program from SPSS-X was run to reveal the ratings of each movement purpose based on means for each statement on both inventories. Each movement purpose of the PPCF has one related statement on the PPMMI and is closely parallel to the professionally judged definition given that element of the framework. For both inventories ratings were established for each of the independent variables listed below:

1. age
2. grade taught
3. years of experience
4. number of preparatory courses in physical education

The gender variable was eliminated due to the insufficient number of male teachers in this elementary school population. The variables of "aid of a physical education specialist" and "number of times teachers plan the lesson" were not used in the results because all teachers in the system had the aid of a specialist twice a week and the planning time varied only slightly.

A Pearson Product Moment Correlation was calculated to depict the relationship between the teachers' ratings of each movement purpose item on the SELF-PPMMI with the parallel item ratings on the CHILD-PPMMI.

Phase Two: Interview Data Analysis

Data from the interviews were drawn from the tape recordings of the teachers' answers to the interview questions. The tapes were then transcribed word for word. The responses given by the teachers were content analyzed to determine the extent to which common themes emerged. Following the purpose aspect of the PPCF outline format (Jewett & Mullan, 1977), profiles were drawn for each interview teacher to depict the value orientations she held for physical activity for herself and for the children she teaches (See Appendix L). These inventory rating profiles were based on the individual teacher's responses on the Likert value scale for every movement purpose on both inventories. These profiles were used to gain a graphic depiction of the distinctions between the scores for the

SELF-PPMMI and the CHILD-PPMMI and to help the interviewer pose individualistic questions to each teacher.

Responses on the profiles were also content analyzed to identify movement purposes teachers liked and disliked on both inventories. Reasons these purposes were important or not important were charted.

A list of the goals the teachers identified as important in the initial meeting was compared with the purposes they reported having the higher value on the inventories. Discussion of these goals and purposes provided a list of purposes that teachers deemed valuable (whether generated from their own conversation or prompted by the terms of the instrumentation).

In summary, every effort was made to insure efficient and reliable procedures which would allow for gathering, analyzing, evaluating, and interpreting data which could lead to a better understanding of the influence of one's attitudes toward perceptions of physical activity by elementary school teachers.

CHAPTER IV

PRESENTATION OF DATA

The purpose of this study was to examine the attitudes of elementary classroom teachers toward physical activity for themselves and the children they teach. The Purpose Process Curriculum Framework (PPCF) was used as a theoretical guide to discuss the teachers' responses in both phases of the study. The results are discussed according to the three key concepts and the 22 purpose elements of the framework (see Figure 1). An attitude inventory, based upon the framework PPMMI-'83 was revised for use in this study. Phase One of the study involved giving the Akers' adaptation of the PPMMI to 150 elementary classroom teachers to assess their attitudes toward physical activity for themselves (SELF-PPMMI) and for the children they teach (CHILD-PPMMI). The data were the mean responses on the 22 movement purpose statements computed by using the condescriptive program of SPSS-X. In Phase Two of the study, ten teachers from a selected school were interviewed and asked to explain their responses on the inventories. Data in each phase are discussed in relation to the framing questions for each phase.

Phase One: Group Data

Phase One data are presented here using the following important definitions:

1. SELF-PPMMI--the original version of the PPMMI to measure classroom teachers' attitudes toward physical activity.

2. CHILD-PPMMI--adaptation of the PPMMI to measure the classroom teachers' attitudes toward the objectives of physical activity for children.

3. PPCF--Purpose Process Curriculum Framework (Jewett & Mullan, 1977).

4. Rating--scores given by teachers to each movement purpose on the inventories.

5. Ranking--investigator ordering of ratings from highest to lowest using the mean scores.

6. Value orientation--scores along the Likert scale from one to nine.

Teachers rated the 22 purpose statements about physical activity on a scale from one to nine; one is "not very meaningful" and nine is "very meaningful." Scores of 1, 2, and 3 are interpreted to represent a "low" rating of value orientation toward the idea about physical activity expressed in the statement; 4, 5, and 6 represent a "medium" rating of value orientation; and 7, 8, and 9 show a "high" rating of value orientation toward physical activity.

In Phase One, 120 elementary school teachers completed all phases of the two inventories (SELF-PPMMI AND CHILD-PPMMI). Demographic data describing these subjects are presented in Table 1.

Attitudes of Elementary Classroom Teachers Toward Physical Activity for Themselves (SELF-PPMMI)

Framing question one is, "How do elementary classroom teachers rate the purposes of physical activity for themselves?" Using the condescriptive program of SPSS-X, Likert scores on the inventories were

TABLE 1

DESCRIPTIVE INFORMATION ON THE GROUP SUBJECTS

Age		Grade Taught		Years of Experience	
Age	N/%	Grade	N/%	Years	N/%
-22	0/ 00.0	K	14/ 12.0	0-05	12/ 10.0
23-32	35/ 29.0	1	29/ 24.0	6-10	26/ 22.0
33-42	36/ 30.0	2	23/ 19.0	11-15	35/ 29.0
43-52	31/ 26.0	3	20/ 17.0	16-20	21/ 17.5
53+	18/ 15.0	4	18/ 15.0	21-25	15/ 12.5
		5	16/ 13.0	25+	11/ 09.0

Preparatory Courses		# Times Specialist Teaches		# Times Teacher Plans	
Courses	N/%	# Times	N/%	# Times	N/%
0	5/ 04.0	never	0/ 00.0	never	6/ 05.0
1	33/ 27.5	once per week	3/ 02.5	once	5/ 04.0
2	43/ 36.0	twice per week	102/ 85.0	twice	29/ 24.0
3	39/ 32.5	three per week	12/ 10.0	three	73/ 61.0
		four per week	3/ 02.5	three +	7/ 06.0

used to determine the mean scores for each of the 22 purposes. Using these mean scores (N=120), the investigator ranked the 22 purposes from highest to lowest. Table 2 reflects these ratings and subsequent rankings.

The top five purposes teachers rated as meaningful to themselves were all from the INDIVIDUAL DEVELOPMENT key concept (see Table 2). These include weight control, circulo-respiratory efficiency, mechanical efficiency, aliveness, and catharsis. Catharsis with a mean score of 7.28 was the highest rated purpose.

Evident in the rankings is the fact that teachers were concerned about the health promotional related purposes. Perhaps the fitness emphasis in our society today could have been a large influence. One wonders if the nation-wide concerns for physical fitness and attractiveness have apparently infiltrated the values of teachers for these areas.

The five purposes given the lowest mean scores by elementary teachers on the SELF-PPMMI came from all three of the PPCF key concepts. Three are from INDIVIDUAL DEVELOPMENT, which includes self-knowledge, challenge and self-transcendence. The remaining two purposes in the bottom five include one from SOCIAL INTERACTION which is the purpose of cultural understanding and one from the ENVIRONMENTAL COPING key concept which is spatial orientation. The lowest mean score of all 22 purposes was given to cultural understanding. Even though cultural understanding received the lowest mean score (4.250) that score was still in the medium range of value orientation.

TABLE 2

MEAN RATINGS AND RANKINGS OF

PURPOSE STATEMENTS ON THE SELF-PPMMI

RANK	PURPOSE	PPCF CONCEPT	Mean Rating	Std.Dev.
1	Catharsis	ID [a]	7.283	1.941
2	Circulo-respiratory	ID	7.175	2.007
3	Aliveness	ID	7.100	1.760
4	Weight control	ID	7.075	2.026
5	Mechanical efficiency	ID	6.933	1.956
6	Musculo-skeletal efficiency	ID	6.908	2.008
7	Participation	SI [b]	6.775	1.732
8	Attractiveness	SI	6.558	2.333
9	Movement efficiency	ID	6.550	2.102
10	Joy of movement	ID	6.367	2.045
11	Leadership	SI	6.108	2.483
12	Self-integration	ID	5.983	2.253
13	Teamwork	SI	5.892	2.122
14	Expression	SI	5.717	2.205
15	Movement appreciation	SI	5.658	2.164
16	Competition	SI	5.500	2.537
17	Object Manipulation	EC [c]	5.358	2.615
18	Self-knowledge	ID	5.250	2.239
19	Spatial orientation	EC	5.225	2.232
20	Self-transcendence	ID	5.117	2.504
21	Challenge	ID	4.625	2.330
22	Cultural understanding	SI	4.250	2.405

a= INDIVIDUAL DEVELOPMENT key concept

b= SOCIAL INTERACTION key concept

c= ENVIRONMENTAL COPING key concept

Attitudes of Elementary Classroom Teachers Toward Physical Activity for the Children They Teach (CHILD-PPMMI)

Framing question two of Phase One is, "How do elementary classroom teachers rate the purposes of physical activity for children?" The mean scores for each purpose were computed using the condescriptive program of SPSS-X. Using these mean scores (N=120), the 22 purposes were ranked by the investigator from highest to lowest. Table 3 reflects these ratings and subsequent rankings.

Considering the 22 purposes as possible objectives of physical activity for children, teachers rated some purposes from all three key concepts in the top five (see Table 3). Three of the top five purposes are from the INDIVIDUAL DEVELOPMENT key concept, catharsis, joy of movement, and movement efficiency. Object manipulation was chosen from the key concept of ENVIRONMENTAL COPING and participation from SOCIAL INTERACTION. Object manipulation with a mean score of 8.058 is the highest rated purpose. All the mean scores in the top five purposes are in the high value range (7-9).

Of the lowest ranked five purposes, three were from SOCIAL INTERACTION: leadership, attractiveness, and cultural understanding. The other purposes ranked in the lowest five are from INDIVIDUAL DEVELOPMENT. They are self-integration and weight control. As they did for themselves on the SELF-PPMMI, teachers rated cultural understanding with the lowest mean score on the CHILD-PPMMI with a 4.542 rating. Even though these latter purposes were ranked in the bottom five, the mean scores were in the medium value range (4-6).

TABLE 3

MEAN RATINGS AND RANKINGS OF

PURPOSE STATEMENTS ON THE CHILD-PPMMI

RANK	PURPOSE	PPCF CONCEPT	Mean Rating	Std.Dev.
1	Object manipulation	EC[a]	8.058	1.463
2	Participation	SI[b]	8.033	1.396
3	Catharsis	ID[c]	7.908	1.588
4	Movement efficiency	ID	7.675	1.661
5	Joy of movement	ID	7.475	1.758
6	Competition	SI	7.275	1.810
7.5	Teamwork	SI	7.008	1.858
7.5	Musculo-skeletal efficiency	ID	7.008	2.144
9	Mechanical efficiency	ID	6.983	2.062
10	Self-knowledge	ID	6.900	1.959
11	Movement appreciation	SI	6.842	1.838
12	Aliveness	ID	6.725	2.130
13	Spatial orientation	EC	6.550	1.914
14	Challengen	ID	6.458	2.207
15	Expressionppreciation	SI	6.425	2.065
16	Circulo-respiratory efficiency	ID	6.358	2.445
17	Self-transcendence	ID	6.225	1.994
18	Leadership	SI	6.150	2.031
19	Self-integration	ID	5.958	2.458
20	Weight control	ID	5.417	2.542
21	Attractiveness	SI	5.092	2.408
22	Cultural understanding	SI	4.542	2.446

a= ENVIRONMENTAL COPING key concept

b= SOCIAL INTERACTION key concept

c= INDIVIDUAL DEVELOPMENT key concept

When rating purposes of physical activity for children, teachers seem to reflect concern for the total development of the child by stressing movement purposes dealing with skill development, socialization, and fun. The health related purposes teachers valued for themselves are not stressed in the top half of the rankings when teachers rated the purposes as objectives of physical activity for children. An apparent distinction is established between the valuing of physical activity by teachers for themselves and for their students. The teachers seem to value health and attractiveness for themselves; for their students their values reflect concerns for maturation and adjustment.

Self-Related Ratings of Purposes of Physical Activity by Age, Grade Taught, Years of Teaching Experience and Number of Preparatory Courses

Framing question three is, "How do the variables of age, grade taught, years of teaching experience, and number of preparatory courses relate to the ratings of the purposes of physical activity for themselves?" Since previous research by Haynes (1973), Nokken (1971), and Phillips (1967) indicated that certain variables were important ones to view in relation to teacher attitude responses, mean scores on the SELF-PPMMI were charted according to age, grade taught, years of teaching experience, and number of preparatory courses.

Age. The variable of age is subdivided into four groups: (a) 23-32, (b) 33-42, (c) 43-52, (d) and 53+. Table 4 shows the percentage of ratings within the high, medium, and low value orientation categories when viewing mean scores on the purpose statements as rated by teachers in each age group.

Table 4

Percentage of Ratings in the High, Medium, and Low Categories by Age on the SELF-PPMMI

		Ratings		
		High	Medium	Low
Age Groups	(N)	(7-9)	(4-6)	(1-3)
23-32	35	23	77	00
33-42	36	27	68	05
43-52	31	14	86	00
53+	18	5	95	00

If one uses the arbitrary dividing line of age 42, teachers in the younger age groups rated a greater percentage of the purpose statements with a mean score in the high category than did teachers in the older age groups. A medium value orientation toward physical activity across all age groups is reflected by the ratings of the 22 purposes on the SELF-PPMMI. The only age group in which any low value orientations were registered was the 33-42 age group, who also had the largest percentage of mean scores in the high range (7-9). Few high mean scores were recorded for the 53 and over age group. This finding supports conclusions reached by Haynes (1973) in his study on teacher attitudes toward physical activity. Haynes used the Kenyon ATPI scales and found that positive attitudes toward physical activity were recorded by younger teachers.

Table 5 shows the mean ratings of each of the 22 purposes by age groups. While the number of subjects is not large enough to justify inferential statistical treatment, upon inspection the data show that younger teachers, those in groups below 43 years of age, gave higher ratings (7-9) to purposes in the INDIVIDUAL DEVELOPMENT key concept than did teachers in the older groups. Teachers in the 53 and over age group valued the purposes of physical activity for themselves lower than any other age group. The majority of lower ratings of the oldest age group were in the INDIVIDUAL DEVELOPMENT key concept, while their higher ratings were in the key concept of SOCIAL INTERACTION. This finding might imply that with increasing age comes a decline in self-interest and a growth in concern for social relationships in physical activity.

Catharsis was the only purpose rated in the high range (7-9) by every age group; in fact, it was considered the number one movement purpose by all age groups except the 33-42 group which rated circulo-respiratory efficiency with the highest mean score. All age groups except the 53+ group gave the lowest rating to cultural understanding. The 53+ group rated challenge as their lowest purpose.

Grade. The sample is represented by teachers who teach kindergarten through fifth grade. Table 6 represents the percentages of ratings of the 22 purposes which fall in the high, medium, and low categories when grouping the teachers by different grades taught.

TABLE 5

MEAN RATINGS OF PURPOSE STATEMENTS

ON THE SELF-PPMMI BY AGE GROUPS

	AGE CATEGORIES			
	23-32	33-42	43-52	53+
PURPOSES [a]	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
I. INDIVIDUAL DEVELOPMENT				
Weight Control	6.71	7.53	7.19	6.67
Movement Efficiency	6.46	6.94	6.39	5.89
Circulo-respiratory	7.09	7.58	7.10	6.67
Musculo-skeletal	7.26	7.44	6.61	5.67
Mechanical efficiency	7.14	7.17	6.96	6.00
Catharsis	7.37	7.11	7.26	7.50
Self-knowledge	5.09	5.36	5.39	5.22
Self-transcendence	4.57	5.58	5.35	4.83
Joy of movement	6.26	6.72	6.13	6.28
Challenge	4.69	5.06	4.29	4.22
Self-integration	6.11	5.92	6.29	5.33
Aliveness	7.14	7.56	6.77	6.67
II. ENVIRONMENTAL COPING				
Object manipulation	5.11	5.61	5.19	5.71
Spatial orientation	5.23	5.22	5.71	4.39
III. SOCIAL INTERACTION				
Attractiveness	6.66	6.78	6.77	5.44
Expression	5.86	5.39	5.84	5.89
Leadership	5.06	6.78	6.23	6.61
Teamwork	5.94	6.33	5.58	5.44
Competition	5.43	6.03	5.23	5.06
Participation	6.94	6.97	6.55	6.44
Cultural understanding	4.00	3.64	4.68	5.22
Movement appreciation	5.89	5.86	5.61	4.89

[a] = Purposes from the PPCF. (Jewett & Mullan, 1977)

Table 6

Percentage of Ratings in the High, Medium, and Low Categories by Grade on the SELF-PPMMI

Grades	(N)	Ratings High (7-9)	Medium (4-6)	Low (1-3)
K	14	9	86	05
1	29	9	91	00
2	23	14	86	00
3	20	14	86	00
4	18	36	64	00
5	16	18	82	00

Teachers in all grade levels show a medium value orientation toward physical activity for themselves as seen by the large percentage of mean scores in the medium category (4-6). Teachers of the fourth and fifth grades rated more purpose statements in the high range than teachers of kindergarten and first grades. Second and third grade teachers' percentage of ratings in the high, medium, and low categories are identical. Fourth grade teachers have the largest percentage of mean scores in the high category with 36%. If the demographic data in Table 1 were broken down further the reader could see that 15 of the 18 fourth grade teachers were also in the younger age group (see Appendix M). This secondary analysis could explain the higher percentage of ratings in the

high range for the fourth grade teachers since the age variable showed younger teachers rated the purposes higher than the other groups. Caution to generalization is appropriate; the analysis does not claim to identify the salient variable--only that an interesting interaction is revealed.

Table 7 depicts the mean ratings of the 22 purposes on the SELF-PPMMI displayed according to the grade the teacher teaches. Eight movement purposes were given ratings in the high range (7-9); among those were catharsis, weight control, circulo-respiratory efficiency, aliveness, attractiveness, participation, musculo-skeletal efficiency, and joy of movement. Catharsis was rated in the high range by teachers of all grades except second and fifth. Second and fifth grade teachers rated aliveness as their highest purpose; however, second grade teachers also rated weight control as a top purpose. Even though fourth grade teachers rated catharsis in the high range (7-9), they rated circulo-respiratory efficiency and musculo-skeletal efficiency still higher with a rating of 7.61 making these their priority purposes.

Purposes given the lowest mean scores were cultural understanding, spatial orientation, object manipulation, challenge, and self-knowledge. Kindergarten teachers and teachers of grades two, three, and four assigned the lowest mean scores to cultural understanding. First and fifth grade teachers rated challenge with the lowest mean score on the SELF-PPMMI.

Years of Teaching Experience. When the group is categorized by the of the number of years of teaching experience a teacher has, six 5-year intervals are represented: (a) 0-5, (b) 6-10, (c) 11-15, (d) 16-20,

TABLE 7

MEAN RATINGS OF PURPOSE STATEMENTS

ON THE SELF-PPMMI BY GRADES TAUGHT

	GRADE TAUGHT					
	K	1	2	3	4	5
PURPOSES[a]	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
I. INDIVIDUAL DEVELOPMENT						
Weight control	6.29	6.93	7.39	7.35	7.28	7.00
Movement efficiency	6.50	6.07	6.61	6.80	6.78	6.44
Circulo-respiratory	6.64	7.24	7.22	7.35	7.61	6.75
Musculo-skeletal	6.71	6.80	6.78	6.80	7.61	6.50
Mechanical efficiency	5.93	6.93	6.96	6.95	7.28	7.38
Catharsis	7.57	7.62	6.91	7.40	7.50	6.56
Self-knowledge	5.36	5.35	5.57	4.80	5.39	4.94
Self-transcendence	5.00	4.17	5.52	5.45	5.61	5.38
Joy of movement	5.50	6.14	6.65	6.65	6.17	7.00
Challenge	4.14	4.15	4.87	4.75	5.11	4.88
Self-integration	5.36	5.66	6.30	5.90	6.17	6.56
Aliveness	6.50	6.79	7.39	6.95	7.51	7.50
II. ENVIRONMENTAL COPING						
Object manipulation	4.83	5.00	5.13	6.05	5.83	5.31
Spatial Orientation	4.50	5.07	5.22	5.10	5.50	6.00
III. SOCIAL INTERACTION						
Attractiveness	7.07	6.28	6.26	6.55	7.00	6.56
Expression	5.50	5.66	5.26	5.60	6.11	6.38
Leadership	5.57	6.17	6.48	6.15	6.06	5.94
Teamwork	5.64	5.69	5.57	5.95	6.56	6.13
Competition	5.36	5.17	5.18	5.75	6.11	5.69
Participation	6.43	6.45	6.91	6.85	7.17	6.94
Cultural understanding	3.29	4.17	4.00	4.65	4.33	5.00
Movement appreciation	5.21	5.28	5.52	5.95	6.00	6.19

[a] = Purposes from the PPCF. (Jewett & Mullan, 1977)

(e) 21-25, and (f) over 25 years. Table 8 shows the percentage of ratings of the 22 purposes which fall in the high, medium, and low value orientation categories when looking at the years of teaching experience.

Table 8

Percentage of Ratings in the High, Medium, and Low Categories by Years of Teaching Experience on the SELF-PPMMI

		Ratings		
		High	Medium	Low
Years	(N)	(7-9)	(4-6)	(1-3)
0-5	12	23	72	05
6-10	26	23	72	05
11-15	35	23	77	00
16-20	21	36	64	00
21-25	15	0	100	00
25+	11	9	91	00

Regardless of the number of years of experience, teachers showed a medium value orientation toward physical activity for themselves. Teachers who have 16-20 years of experience have the largest percentage of mean scores in the high category (36%). The age variable plays a part here in the difference between the groups who have 0-20 years of experience and those who have over 20 years of experience in the percentage of ratings in the high range. These findings are in complete

agreement with the Haynes' (1973) data from the ATPI inventory in relation to the years of teaching experience.

Table 9 reflects the mean ratings of the 22 purpose statements by the number of years of teaching experience. All purposes rated in the high range (7-9) are from the key concept of INDIVIDUAL DEVELOPMENT except leadership, participation, and attractiveness, which are purpose statements given high ratings from the key concept of SOCIAL INTERACTION.

Teachers varied in the purpose that they rated as their number one purpose. Teachers with 0-5 years of teaching experience rated aliveness number one. Musculo-skeletal efficiency and mechanical efficiency were both tied for number one ratings from the responses of teachers with 6-10 years of experience. Teachers with 11-15 and 21-25 years of teaching experience rated catharsis highest. All of these top priority purposes rated number one reflect the key concept area of INDIVIDUAL DEVELOPMENT. Teachers with 16-20 and more than 25 years of teaching experience rated leadership, from SOCIAL INTERACTION, as their number one personal movement purpose. This was one of only a few instances in which a group rated a purpose from the SOCIAL INTERACTION key concept as number one. Teachers with 0-5 and 6-10 years of experience gave the only two scores in the low range (1-3). Both of these former groups rated cultural understanding in the low range. Teachers with 21-25 years of teaching experience rated object manipulation as the lowest purpose, and teachers with over 25 years of teaching experience assigned challenge their lowest score.

Preparatory Courses. When looking at the data according to the preparation of teachers for teaching physical education, four groups were

TABLE 9

MEAN RATINGS OF PURPOSE STATEMENTS

ON THE SELF-PPMMI BY YEARS OF TEACHING EXPERIENCE

	YEARS OF EXPERIENCE					
	0-5	6-10	11-15	16-20	21-25	25+
PURPOSES[a]	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
I. INDIVIDUAL DEVELOPMENT						
Weight control	6.83	6.81	7.63	7.30	6.23	6.46
Movement efficiency	7.17	6.73	6.69	6.00	5.69	5.64
Circulo-respiratory	7.08	7.35	7.46	7.75	6.25	6.27
Musculo-skeletal	7.17	7.46	6.89	7.10	5.94	6.46
Mechanical efficiency	7.00	7.46	6.89	7.05	6.31	6.46
Catharsis	6.58	7.31	7.83	7.25	6.56	7.36
Self-knowledge	5.92	4.92	5.51	4.75	5.69	4.73
Self-transcendence	4.92	4.77	4.94	5.50	5.13	6.00
Joy of movement	6.75	6.39	6.23	6.90	5.44	6.73
Challenge	4.17	4.81	4.54	5.20	4.56	4.00
Self-integration	6.08	6.15	5.66	6.00	5.75	6.82
Aliveness	7.58	7.39	7.28	7.25	6.06	6.55
II. ENVIRONMENTAL COPING						
Object manipulation	4.83	5.19	5.40	6.00	4.38	6.46
Spatial Orientation	5.25	4.92	5.23	5.20	5.56	5.46
III. SOCIAL INTERACTION						
Attractiveness	6.83	6.85	7.11	6.30	6.13	4.91
Expression	6.00	5.42	5.23	6.35	6.00	6.09
Leadership	6.08	4.50	6.26	7.80	5.31	7.55
Teamwork	6.58	5.92	6.03	6.30	5.19	6.00
Competition	5.92	5.50	5.14	5.80	5.44	5.73
Participation	6.92	6.69	6.91	7.25	6.06	6.55
Cultural understanding	3.42	3.58	4.17	4.70	4.44	5.91
Movement appreciation	6.00	5.96	5.31	5.95	5.38	5.55

[a] = Purposes from the PPCF. (Jewett & Mullan, 1977)

arranged: (a) those with zero preparatory courses, (b) those with one, (c) with two, and (d) those with three or more courses. Table 10 shows the percentage of ratings of the 22 purposes which fall in the high, medium, and low value orientation categories when examining the number of preparatory courses a teacher has taken.

Table 10

Percentage of Ratings in the High, Medium, and Low Categories by Preparatory Courses on the SELF-PPMMI

		Ratings		
		High	Medium	Low
Prep. Courses	(N)	(7-9)	(4-6)	(1-3)
0	5	64	36	00
1	33	18	77	05
2	43	5	95	00
3+	39	23	77	00

Teachers who had no preparatory courses in physical education reported the largest percentage of mean scores in the high category (64%). While there are only five teachers composing this group, examination of demographic data (see Appendix M) confirms that three of the five are over 43 years old, one is in the 23-32 age group, and one is in the 33-42 age group. Four of the five teach in the upper grades, (4 and 5) and the other teaches first grade. Four of the five have

between 16 and 25 years of teaching experience. A characterizing sketch of this group indicates that they are older with over 16 years of experience and teach upper grades. The older teachers may not have had the opportunity to experience preparatory courses in physical education and may not have elected to take any formal inservice in that area which they could have interpreted as "courses." The fact that teachers with no preparatory courses rated the purposes high and teachers with one course rated them low is hard to explain. Perhaps the teaching experience awakens the need in the individual teacher for physical activity as a relief measure from tension. An alternative explanation might be that the preparatory courses teachers have taken might have led them to dislike physical activity for themselves. One cannot reject the possibility that taking preparatory courses has little or no relation to the scores on the SELF-PPMMI.

Regardless of the number of courses for those who have had preparation in physical education, teachers showed a medium level value orientation toward physical activity for themselves. Only those with a single preparatory course rated any purpose in the low range (1-3).

Table 11 depicts the mean ratings of the 22 purposes by number of preparatory courses a teacher has taken in physical education. Purposes in the key concept area of INDIVIDUAL DEVELOPMENT were rated with higher mean scores than the other two key concept areas. Teachers with zero preparation or one course rated circulo-respiratory efficiency as their number one purpose. Teachers who had two courses of preparation rated catharsis as their top priority movement purpose, while teachers with three or more courses felt that weight control was more important. The

TABLE 11

MEAN RATINGS OF PURPOSE STATEMENTS

ON THE SELF-PPMMI BY PREPARATORY COURSES

	PREPARATORY COURSES			
	0	1	2	3
PURPOSES[a]	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
I. INDIVIDUAL DEVELOPMENT				
Weight Control	8.60	6.82	6.81	7.38
Movement Efficiency	8.21	6.33	6.40	6.54
Circulo-respiratory	8.80	7.21	6.88	7.26
Musculo-skeletal	7.00	7.00	6.54	7.23
Mechanical efficiency	8.00	6.97	6.74	6.97
Catharsis	8.20	7.15	7.37	7.18
Self-knowledge	7.20	4.82	5.26	5.36
Self-transcendence	6.00	4.76	5.30	5.10
Joy of movement	6.20	6.09	6.35	6.64
Challenge	6.40	4.24	4.61	4.74
Self-integration	7.00	5.52	6.09	6.13
Aliveness	8.40	7.18	6.86	7.13
II. ENVIRONMENTAL COPING				
Object manipulation	6.80	5.94	5.21	5.69
Spatial orientation	6.20	4.82	5.42	5.23
III. SOCIAL INTERACTION				
Attractiveness	7.40	6.21	6.51	6.79
Expression	6.80	5.18	5.77	5.97
Leadership	7.20	5.00	6.40	6.59
Teamwork	6.20	5.42	6.12	6.00
Competition	7.00	5.21	5.80	5.77
Participation	7.80	6.73	6.70	6.87
Cultural understanding	5.60	3.67	4.35	4.46
Movement appreciation	7.40	5.39	5.51	5.82

[a] = Purposes from the PPCF. (Jewett & Mullan, 1977)

top five rated purposes emerging from all groups were from the INDIVIDUAL DEVELOPMENT key concept. Self-transcendence, challenge, and cultural understanding were purposes which received lower ratings. Even though these purposes were rated lower, all their mean scores fell in the medium range (4-6) except the rating of 3.67 given to cultural understanding by teachers with one preparatory course.

Child-Related Ratings of Purposes of Physical Activity by Age, Grade Taught, Years of Teaching Experience, and Number of Preparatory Courses

Framing question four is "How do the variables of age, grade taught years of teaching experience, and number of preparatory courses relate to the ratings of the purposes of physical activity for children?" On the CHILD-PPMMI the stem of the statements was changed to read "children move to...." Teachers were asked to respond to each statement according to how they perceived that purpose as an objective of physical education for children. Since previous studies by Haynes(1973), Nokken(1971), and Phillips(1967) indicated that certain variables were important in relation to teacher attitude responses, mean scores on the CHILD-PPMMI were charted according to age, grade taught, years of teaching experience and number of preparatory courses.

Age. The variable of age is subdivided into four groups: (a) 23-32 (b) 33-42, (c) 43-52, (d) and 53+. Table 12 shows the percentage of ratings within the high, medium, and low value orientation categories when examining mean scores on the movement purpose statements as rated by teachers in each age group.

If one uses the arbitrary dividing line of age 42, teachers in the older groups rated a greater percentage of the purpose statements higher than teachers in the younger groups. Teachers 53 and over have the

Table 12

Percentage of Ratings in the High, Medium, and Low Categories by Age on the CHILD-PPMMI

Age Groups	(N)	Ratings High (7-9)	Medium (4-6)	Low (1-3)
23-32	35	18	77	05
33-42	36	32	68	00
43-52	31	41	59	00
53+	18	68	32	00

greater percentage of mean scores in the high category (68%). Teachers in the remaining groups show a medium value orientation (4-6). The only age group to register any low mean scores was the 23-32 age group.

Table 13 shows the mean ratings of each of the 22 purposes by age groups. While the number is not of size to justify inferential statistical treatment, the demographic data (see Appendix M) upon inspection show that older teachers (53 and over) gave higher absolute ratings to the purposes than did the younger groups. Teachers 53-and-over rated 15 of the 22 purposes in the high range (7-9), while teachers in the younger group (23-32) rated only four purposes in the high range (7-9). Teachers in the 53-and-over group rated purposes high in all three key concepts. Perhaps their years of teaching experience and maturity increased their awareness of the importance of the

TABLE 13

MEAN RATINGS OF PURPOSE STATEMENTS

ON THE CHILD-PPMMI BY AGE GROUPS

	AGE CATEGORIES			
	23-32	33-42	43-52	53+
PURPOSES [a]	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
I. INDIVIDUAL DEVELOPMENT				
Weight Control	4.43	5.64	6.00	5.89
Movement Efficiency	7.53	7.72	7.45	8.22
Circulo-respiratory	6.37	6.14	6.16	7.11
Musculo-skeletal	6.74	6.86	7.03	7.79
Mechanical efficiency	6.76	6.89	7.10	7.44
Catharsis	8.34	8.06	7.19	8.00
Self-knowledge	6.80	7.25	6.26	7.50
Self-transcendence	6.23	6.44	5.97	6.22
Joy of movement	6.97	8.11	7.29	7.50
Challenge	7.37	6.33	6.16	7.39
Self-integration	5.49	5.83	6.26	6.61
Aliveness	6.67	6.56	6.61	7.33
II. ENVIRONMENTAL COPING				
Object manipulation	8.17	8.22	7.58	8.33
Spatial orientation	6.67	6.83	6.26	6.22
III. SOCIAL INTERACTION				
Attractiveness	4.49	4.94	5.26	6.28
Expression	6.09	6.17	6.58	7.33
Leadership	5.54	6.64	6.03	6.57
Teamwork	6.86	6.97	7.19	7.06
Competition	6.97	7.19	7.29	7.90
Participation	8.20	8.44	7.48	7.83
Cultural understanding	3.63	4.50	5.03	5.56
Movement appreciation	6.57	6.72	6.77	7.72

[a] = Purposes from the PPCF. (Jewett & Mullan, 1977)

development of the total individual which may explain why they valued the movement purpose statements from all three key concepts. Purpose statements rated high by all groups include object manipulation, participation, catharsis, and movement efficiency. These purpose statements represent a good cross section of the framework, at least one from each key concept. Cultural understanding, weight control, and attractiveness were lower rated purposes. Although these purposes were rated lower, the mean scores given by teachers in each age group were in the medium range (except the rating of 3.63 given by the 23-32 age group to cultural understanding).

Grade. The sample is represented by teachers who teach kindergarten through fifth grade. Table 14 shows the percentage of ratings of the 22 purposes which fall in the high, medium, and low value orientation categories when grouping the teachers by different grades taught.

Fifth grade teachers gave a substantially greater percentage of high ratings than did teachers of any other grade. Of these 16 teachers, half are in the 23-32 age group, eight have fewer than two preparatory courses and 13 have less than 15 years of teaching experience (see breakdown of demographic data in Appendix M). This might lead one to believe that in this sample younger teachers with less experience and less preparation in physical education value the purposes more highly for children than any teachers of any other grades. When examining the demographic data (see Appendix M) for the fourth grade teachers who had the lowest percentage of mean scores in the high range (7-9), one finds the same description. Nine of the 18 are in the 23-32 age group; 12 of the 18 have fewer than

Table 14

Percentage of Ratings in the High, Medium and Low Categories by Grade on the CHILD-PPMMI

		Ratings		
		High	Medium	Low
Grades	(N)	(7-9)	(4-6)	(1-3)
K	14	32	59	09
1	29	45	55	00
2	23	45	55	00
3	20	41	59	00
4	18	27	73	00
5	16	68	32	00

15 years of teaching experience; and 9 of the 18 have taken less than two preparatory courses. Therefore, a conclusion suggesting a "teacher characterization pattern" cannot be drawn. Teachers in grades K-3 have relatively the same percentage of ratings in the high and medium categories.

Table 15 shows the mean ratings of the 22 purposes on the CHILD-PPMMI displayed according to the grade the teacher teaches. Several movement purpose statements were rated in the high category by teachers of all grade levels: object manipulation, participation, catharsis, movement efficiency, and joy of movement. High regard is evident here for the INDIVIDUAL DEVELOPMENT aspect since three of the

TABLE 15

MEAN RATINGS OF PURPOSE STATEMENTS

ON THE CHILD-PPMMI BY GRADES TAUGHT

	GRADE TAUGHT					
	K	1	2	3	4	5
PURPOSES[a]	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
I. INDIVIDUAL DEVELOPMENT						
Weight control	4.43	4.90	5.48	5.55	6.00	6.31
Movement efficiency	7.36	7.48	7.99	7.65	7.56	8.00
Circulo-respiratory	6.07	6.17	6.39	6.45	6.00	7.19
Musculo-skeletal	6.50	6.90	7.30	7.25	6.17	7.83
Mechanical efficiency	6.79	7.03	6.74	7.50	5.94	7.94
Catharsis	8.29	7.86	7.57	7.60	8.06	8.38
Self-knowledge	7.00	6.35	7.09	7.05	6.61	7.69
Self-transcendence	6.50	5.31	6.22	6.25	6.89	6.88
Joy of movement	7.64	7.62	7.30	7.40	7.00	7.94
Challenge	5.93	6.52	6.96	6.00	6.61	6.50
Self-integration	5.71	5.59	6.48	5.90	5.72	6.44
Aliveness	6.29	7.10	6.52	6.70	6.22	7.31
II. ENVIRONMENTAL COPING						
Object manipulation	8.29	8.17	8.04	7.85	8.22	7.75
Spatial Orientation	7.00	6.14	6.39	6.60	6.17	7.50
III. SOCIAL INTERACTION						
Attractiveness	3.86	4.76	5.09	6.00	4.89	5.88
Expression	5.71	6.72	6.87	6.15	5.94	6.75
Leadership	6.14	5.66	5.87	6.30	6.39	7.00
Teamwork	6.36	7.28	7.00	6.85	6.89	7.44
Competition	6.86	7.03	7.35	7.25	7.94	7.25
Participation	8.29	8.00	7.70	7.85	8.28	8.31
Cultural understanding	3.57	4.21	4.89	5.15	4.17	5.19
Movement appreciation	5.50	7.10	7.00	6.95	6.33	7.75

[a] = Purposes from the PPCF. (Jewett & Mullan, 1977)

above five are purpose elements categorized there. Fifth grade teachers rated more movement purposes in the high range (7-9) than teachers of any other grade. Their high ratings (7-9) were spread over all three key concepts. This supports the child development literature that states that fifth grade children are at a developmental point at which they must grow as individuals, cope with their environment, and be able to achieve social interaction. Possibly the fifth grade teachers are more concerned with these types of integrative development for the child. Kindergarten teachers assigned a high mean score to three purposes: catharsis, object manipulation, and participation. First and second grade teachers favored object manipulation as their top purpose. Third grade teachers rated two purposes with the highest mean scores, participation and object manipulation; while fourth grade teachers preferred participation. Fifth grade teachers felt catharsis should be the top purpose. Kindergarten teachers were the only group to rate the purpose statements in the low category (1-3); they rated atttractiveness and cultural understanding with low mean scores. Teachers of all other grades rated cultural understanding with their lowest mean score also, although their ratings were in the medium range (4-6).

Years of Teaching Experience. When the group is categorized by the variable of the number of years of teaching experience a teacher has, six 5-year intervals are represented including: (a) 0-5, (b) 6-10, (c) 11-15, (d) 16=20, (e) 21-25, and (f) over 25 years. Table 16 shows the percentage of ratings of the 22 purposes which fall in the high, medium, and low value orientation categories when looking at the years of teaching experience.

Teachers who have 16-20 years of teaching experience have the greater percentage of mean scores in the high range (7-9) when rating the purpose statements as objectives of physical activity for children. Secondary analysis reveals that 16 of the 21 teachers in this group are teachers of grades 1-3 (see breakdown of demographic data in Appendix M). All the other groups have high percentages in the medium category (4-6). Only teachers with 0-5 and 6-10 years of teaching experience rated any of the movement purpose statements in the low categories (1-3).

Table 16

Percentage of Ratings in the High, Medium and Low Categories by Years of Experience on the CHILD-PPMMI

		Ratings		
		High	Medium	Low
Years	(N)	(7-9)	(3-4)	(1-3)
0-5	12	23	68	09
6-10	26	23	72	05
11-15	35	45	55	00
16-20	21	55	45	00
21-25	15	27	73	00
25+	11	41	59	00

Table 17 depicts the mean ratings of the 22 purpose statements by the number of years teaching experience. Object manipulation, from

TABLE 17

MEAN RATINGS OF PURPOSE STATEMENTS

ON THE CHILD-PPMMI BY YEARS OF TEACHING EXPERIENCE

	YEARS OF EXPERIENCE					
	0-5	6-10	11-15	16-20	21-25	25+
PURPOSES[a]	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
I. INDIVIDUAL DEVELOPMENT						
Weight control	3.08	4.69	5.97	6.48	5.40	5.91
Movement efficiency	6.75	7.73	8.17	7.17	7.13	7.64
Circulo-respiratory	5.42	6.42	6.77	6.05	6.60	6.18
Musculo-skeletal	6.00	6.77	7.37	7.29	7.07	6.91
Mechanical efficiency	6.00	6.45	7.26	7.33	6.87	7.00
Catharsis	7.82	8.15	8.46	8.24	6.33	7.09
Self-knowledge	6.92	6.39	7.60	7.29	5.87	6.55
Self-transcendence	6.83	5.89	6.40	6.43	5.93	5.82
Joy of movement	7.75	7.00	7.83	7.67	6.93	7.55
Challenge	5.83	6.15	6.57	6.33	7.00	7.01
Self-integration	6.33	5.31	5.77	6.57	6.00	6.46
Aliveness	6.33	6.85	6.66	7.10	6.73	6.55
II. ENVIRONMENTAL COPING						
Object manipulation	7.92	8.27	8.29	8.39	7.07	7.73
Spatial Orientation	7.17	6.58	6.51	6.91	5.73	6.36
III. SOCIAL INTERACTION						
Attractiveness	4.33	4.12	5.51	5.43	5.07	6.27
Expression	6.17	5.96	6.69	6.52	6.67	6.46
Leadership	6.00	5.04	6.51	6.91	6.07	6.46
Teamwork	6.75	6.77	7.31	7.05	6.80	7.09
Competition	6.75	6.81	7.29	7.77	7.47	7.81
Participation	3.33	3.27	8.31	8.24	6.93	7.36
Cultural understanding	3.00	3.89	4.60	5.14	4.80	6.09
Movement appreciation	6.33	6.38	6.97	7.48	7.00	6.64

[a] = Purposes from the PPCF. (Jewett & Mullan, 1977)

ENVIRONMENTAL COPING, was the only purpose rated in the high category by all groups. Participation, catharsis, and joy of movement are purpose statements rated high by all groups except teachers with 21-25 years of experience. Teachers with 0-5 years of experience rated the movement purpose of participation as their top priority; while teachers with 6-10 years of teaching experience preferred participation and object manipulation. Catharsis was the top purpose, due to high ratings given by teachers with 11-15 years of teaching experience. Teachers with 16-20 years of experience felt that object manipulation was the most important purpose and teachers with 21-25 and over 25 years of teaching experience agreed on competition as their number one purpose. Regardless of years of experience teachers rated movement purposes from all three key concepts in the high range (7-9).

Teachers with 0-5 and 6-10 years of teaching experience were the only groups who rated any purposes with low mean scores (1-3). Weight control and cultural understanding were the purposes rated low by teachers in the 0-5 group, while teachers in the 6-10 group rated only cultural understanding low. Cultural understanding was classified as a lower purpose, because teachers from all groups except the 25-and-over group gave it their lowest score. Teachers from the 25-and-over group assigned self-transcendence the lowest score.

Preparatory Courses. When looking at the data according to the preparation of teachers for teaching physical education, four groups were considered: (a) those with zero preparatory courses, (b) those with one, (c) with two, and (d) with three or more courses. Table 18 depicts the percentage of ratings of the 22 purposes which fall in the high, medium,

and low value orientation categories when examining the number of preparatory courses a teacher has taken.

Table 18

Percentage of Ratings in the High, Medium and Low Categories by Preparatory Courses on the CHILD-PPMMI

		Ratings		
		High	Medium	Low
Prep. Courses	(N)	(7-9)	(3-4)	(1-3)
0	05	82	18	00
1	33	32	63	05
2	43	41	59	00
3+	39	36	64	00

Teachers with no preparatory courses reported the greater percentage of mean scores in the high category with 82 percent. There are only five teachers in this group; the low number makes the statistic questionable. One teacher's high responses can outweigh the other four due to the weight of exaggerated responses in small groups. Demographically, members of this group are in the older age group, have over 16 years of teaching experience, and teach upper grades (see breakdown of demographic data in Appendix M). Teachers in all the other groups show a medium value orientation toward the movement purposes as objectives of physical activity for children. Only teachers with one preparatory course rated any purposes in the low category (1-3).

Table 19 shows the mean ratings of the 22 purposes by number of preparatory courses a teacher has taken in physical education. The only common purposes rated in the high category are object manipulation, participation, catharsis, movement efficiency, joy of movement, and competition. Regardless of number of preparations, teachers rated purposes with high mean scores from all three key concept areas. Teachers with no preparatory courses rated four purposes with their highest mean score of 8.60; therefore, these purposes received a number one ranking. These include movement efficiency, mechanical efficiency, catharsis, and competition. Teachers who have one preparatory course rated participation with the highest mean score. Object manipulation was the top movement purpose because of high ratings by teachers with two and three or more preparatory courses in physical education.

Only one purpose, cultural understanding, received a low mean score 3.97, which was assigned by teachers with one preparatory course. Teachers in all four categories rated cultural understanding the lowest; even though the rating was the lowest, the mean scores of teachers with no preparatory courses, two preparatory courses, and three or more preparatory courses were in the medium range (4-6). Weight control received a rating from teachers with one and two preparatory courses, but received a high rating from teachers with three or more preparatory courses.

TABLE 19

MEAN RATINGS OF PURPOSE STATEMENTS

ON THE CHILD-PPMMI BY PREPARATORY COURSES

	PREPARATORY COURSES			
	0	1	2	3
PURPOSES[a]	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
I. INDIVIDUAL DEVELOPMENT				
Weight Control	7.80	4.88	5.19	7.82
Movement Efficiency	8.60	7.94	7.28	7.77
Circulo-respiratory	8.40	5.91	6.28	6.56
Musculo-skeletal	8.00	7.42	6.79	6.77
Mechanical efficiency	8.60	6.94	7.00	6.80
Catharsis	8.60	8.27	7.73	7.72
Self-knowledge	8.00	6.88	6.84	6.85
Self-transcendence	6.80	6.00	6.63	5.90
Joy of movement	8.20	7.36	6.72	7.21
Challenge	7.60	6.46	6.49	6.28
Self-integration	7.40	5.49	6.21	5.90
Aliveness	8.20	6.46	6.63	6.87
II. ENVIRONMENTAL COPING				
Object manipulation	8.40	8.00	8.07	8.05
Spatial orientation	6.80	6.21	6.77	6.56
III. SOCIAL INTERACTION				
Attractiveness	6.60	4.55	4.95	5.51
Expression	7.20	6.33	6.84	5.95
Leadership	7.40	5.67	6.47	6.05
Teamwork	7.60	6.67	7.21	7.00
Competition	8.60	7.24	7.05	7.39
Participation	7.00	8.30	7.98	8.00
Cultural understanding	5.40	3.97	4.77	4.67
Movement appreciation	8.20	6.76	7.02	6.54

[a] = Purposes from the PPCF. (Jewett & Mullan, 1977)

Relationship Between Elementary Classroom Teachers' Ratings of the Purposes of Physical Activity for Themselves and for the Children They Teach

Framing question five in Phase One asked: "Do classroom teachers hold the same value orientations about physical activity for children as they do for themselves?" To approach this question for the group data (N=120), the Pearson Product Moment Correlation was run to determine the relationship between the mean scores of the items on the SELF-PPMMI and the mean scores of the items on the CHILD-PPMMI (see Table 20). Six of the purposes were significantly correlated but all of these are quite low. This suggests little systematic relationships. The items where significant correlations appeared are cultural understanding, expression, teamwork, self-transcendence, self-integration, and aliveness. In all of the six items the percentage of shared variance falls within 4% to 16%, which is a very small amount of commonality. The first three such items are from the SOCIAL INTERACTION key concept, and the last three are from the INDIVIDUAL DEVELOPMENT key concept. During the interview phase of the pilot study, teachers mentioned the ambiguity of the wording of certain purposes. Among these possibly ambiguous items were cultural understanding, and self-transcendence. On the pilot study these two purposes also had low reliability but were retained because the investigator desired the teachers to examine the total 22 purposes of the PPCF. Also it was thought useful to discover why these purposes were confusing. In the end it was revealed that some of the teachers in the interview sample felt they either did not understand certain phrases within the statements or could not relate to the statements.

TABLE 20

CORRELATIONS BETWEEN THE MEAN SCORES

ON THE SELF-PPMMI AND THE CHILD-PPMMI

PURPOSES	r	r^2	p
I. INDIVIDUAL DEVELOPMENT			
Circulo-respiratory	.081	.007	.377
Mechanical efficiency	.135	.018	.141
Movement efficiency	.169	.028	.064
Musculo-skeletal efficiency	.082	.007	.372
Weight control	.044	.002	.630
Joy of movement	.119	.014	.194
Self-knowledge	.162	.026	.076
Self-transcendence	.255	.065	.005*
Catharsis	.038	.001	.676
Challenge	.185	.034	.042
Aliveness	.220	.048	.016*
Self-integration	.229	.052	.012*
II. ENVIRONMENTAL COPING			
Object manipulation	.086	.007	.346
Spatial Orientation	.138	.019	.113
III. SOCIAL INTERACTION			
Expression	.266	.070	.003*
Attractiveness	-.016	.000	.857
Teamwork	.256	.065	.005*
Leadership	.178	.031	.051
Competition	.136	.018	.138
Participation	.159	.025	.082
Cultural understanding	.395	.156	.000*
Movement appreciation	.111	.012	.228

* Significant at .05 level.

Examination of the movement purpose ratings using the means and standard deviations from Table 2 and Table 3 indicates that teachers rated the purpose statements higher for children than they did for themselves. But since the high and low patterns varied by item, low correlations were found between all items.

When the mean scores of the purpose statements are ranked it becomes clear that teachers did not hold the same value orientations for themselves as they held for children. Only one common purpose appears in the top five--catharsis, and one common purpose in the bottom five--cultural understanding (see Table 21).

When the items in the ranked positions are compared, cultural understanding, musculo-skeletal efficiency, self-transcendence, expression, and catharsis are the only purposes within three rankings of one another on both inventories. The teachers valued these purposes more equally for self and child than any of the other purposes. The following purposes are at least ten or more rankings apart: circulo-respiratory, weight control, object manipulation, attractiveness, and competition. The teachers valued these purposes differently for themselves than they did for the children, as will become evident when examining the data in Phase Two. During the interview phase of the study, teachers' reasons for rating the purposes the way they did pointed to the difference in physical maturity between themselves and the children and differences in interests between themselves and the children.

TABLE 21

RELATIONSHIP BETWEEN SELF-PPMMI AND CHILD-PPMMI RANKINGS

PURPOSES	SELF-PPMMI RANKINGS	CHILD-PPMMI RANKINGS	
I. INDIVIDUAL DEVELOPMENT			
Circulo-respiratory	2	16	D
Mechanical efficiency	5	9	
Movement efficiency	9	4	
Musculo-skeletal efficiency	6	7.5	S
Weight control	4	20	D
Joy of movement	10	5	
Self-knowledge	18	10	
Self-transcendence	20	17	S
Catharsis	1	3	S
Challenge	21	14	
Aliveness	3	12	
Self-integration	12	19	
II. ENVIRONMENTAL COPING			
Object manipulation	17	1	D
Spatial Orientation	19	13	
III. SOCIAL INTERACTION			
Expression	14	15	S
Attractiveness	8	21	
Teamwork	13	7	
Leadership	11	18	
Competition	16	6	D
Participation	7	2	
Cultural understanding	22	22	S
Movement appreciation	15	11	

D = Different (at least 10 rankings apart)

S = Similar (within 3 rankings)

Phase Two: Individual Responses

The Teachers

Phase Two was the interview phase of the study in which individualistic responses were sought. Ten teachers at a selected school were interviewed. Table 22 shows the descriptive information on the interview subjects according to the variables considered. These teachers consisted of three first grade teachers, one second grade teacher, one third grade teacher, one fourth grade teacher, two fifth grade teachers and two teachers of special populations who are listed by the school as a kindergarten and a second grade teacher. Four age groupings are represented: (a) three from the 23-32 age group, (b) four from the 33-42 age group, (c) one from the 43-52 age group, and (d) two from the 53 and over age group. The years of teaching experience varied with (a) one person having 0-5 years, (b) four having 6-10 years, (c) two having 11-15 years, (d) zero with 16-20 years, (e) one having 21-25 years, and (f) two having 25 or more years of teaching experience. Five of the teachers had completed at least one preparatory course in physical education. Two had taken two courses and three had experienced three or more courses. All ten teachers shared the services of the same certified physical education specialist twice a week. Seven teachers planned the physical education lesson three times a week, two planned it twice a week, and one person planned more than three times a week (see Table 22).

TABLE 22

DESCRIPTIVE INFORMATION ON THE INTERVIEW SUBJECTS

Age		Grade Taught		Years of Experience	
Age	N/%	Grade	N/%	Years	N/%
-22	0/ 00.0	K	1/ 10.0	0-05	1/ 10.0
23-32	3/ 30.0	1	3/ 30.0	6-10	4/ 40.0
33-42	4/ 40.0	2	2/ 20.0	11-15	2/ 20.0
43-52	1/ 10.0	3	1/ 10.0	16-20	0/ 00.0
53+	2/ 20.0	4	1/ 10.0	21-25	1/ 10.0
		5	2/ 20.0	25+	2/ 20.0

Preparatory Courses		# Times Specialist Teaches		# Times Teacher Plans	
Courses	N/%	# Times	N/%	# Times	N/%
0	0/ 00.0	never	0/ 00.0	never	0/ 00.0
1	5/ 50.0	once per week	0/ 00.0	once	0/ 00.0
2	2/ 20.0	twice per week	10/ 100.0	twice	2/ 20.0
3	3/ 30.0	three per week	0/ 00.0	three	7/ 70.0
		four per week	0/ 00.0	three +	1/ 10.0

The Structured Interview and Responses

All teachers were interviewed in the classroom setting at the end of the school day. Tape recordings were made of all interviews which varied in length from 50 minutes to 70 minutes. Each teacher was offered a 10 dollar honorarium for her time.

The data in Phase Two are discussed according to the two framing questions of this phase. Framing question one asked, "What are the variables that the classroom teachers perceive as influencing their value orientation toward physical activity for themselves and for the children they teach?" A list of structured questions was developed to research the answer to this question and are discussed in this section.

The interview questions were divided into two sections. Section one included questions dealing with the elementary classroom teachers' attitudes toward physical activity for themselves. Section two contained questions which related to the teachers' attitudes toward the objectives of physical activity for children. All teachers were asked to respond to the same questions (see Appendix K).

Three questions in section one were designed to ascertain more about a teacher's attitude toward physical activity for herself:

1. What kind of physical activity do you enjoy?
2. How often do you participate?
3. What benefits do you feel you receive from participation?

Table 23 shows the answers the teachers gave to these three questions. One can see that teachers enjoyed a variety of activities, each expressing different interests. Common activities enjoyed by some include swimming, walking, and dancing. Most of them felt that their

TABLE 23

TYPES OF ACTIVITIES, BENEFITS FROM ACTIVITIES AND

FREQUENCY OF PARTICIPATION OF INTERVIEW SUBJECTS

TEACHERS	TYPES	BENEFITS	FREQUENCY
A	Skiing, swim, and dance	Improve circulatory system	Mostly in the summer
B	Bowling, fishing	Relaxation, challenge	Every weekend
C	Swimming, walking	Release of tension, relaxes you, tone up, lose weight, makes you feel better.	4 times per week
D	Rollerskate, biking, volleyball	Relieves tension, good physical work out, socialization	Once a week
E	Square dancing and walking	general exercise, fellowship	3 times per week
F	Jump rope	Relieves tension, makes me alert	3-4 times per week
G	Running after my son	Cardiovascular improvement, have more energy, feel good	Every day
H	Bowling, softball, putt-putt	Fellowship, exercise	3 times per week
I	Exercise to music	Trim body, relaxation	2 days per week
J	Soccer, running, aerobics, swimming	Cardiovascular improvement, develop muscle tone, general strength development	1 hour per day

physical activity helped to trim the body, relax the mind, and improve the cardio-vascular system. The important thing is that teachers do exercise or at least feel the need for exercise.

Teachers described a real problem in finding time to participate in the activities they enjoyed. The range of participation extended from one hour a day to "mostly in the summer." Six of the 10 teachers interviewed reported participation in physical activities at least three times a week.

When asked "what benefits do you receive from the activities you participate in?", teachers responded with several similar answers. Those benefits most common to the teachers interviewed were these:

1. Improvement of the circulatory system
2. Relaxation
3. Muscle toning
4. Socialization
5. Energy boost

Section two contained questions concerning the teachers' attitudes about the purposes of physical activity for children. These questions do not parallel the questions in section one because they are role-oriented questions, not self-oriented. Several questions from section two were:

1. What are goals you feel to be important reasons children need physical activity?
2. How often do you feel children need physical activity?
3. What environmental factors affect your planning physical activities for children?

Table 24 lists goals the teachers felt were important for children. These were elicited before the interview sessions. Later the teachers were again asked to discuss their goals of physical activity for children during the interviews. It was hoped that by doing this, the interviewer would get closer to the respondents' true opinions. Some common goals include these:

1. Development of coordination
2. Release of tension
3. Development of motor skills
4. Development of cooperation

In the interviews, several teachers stressed the importance of physical activity in the development of coordination and the relationship of coordination to academic progress. They felt that the more coordinated children were, the better they could write. Some stressed the positive relationship between good coordination and a good self-concept. Primary teachers (K-2) believed that the ability of a child to release tension through physical activity was of major importance . The short attention span of the child, they held, made it necessary to stress this goal. Teachers of grades 3-5 supported the need for children to refine motor skills. They too felt this accomplishment aided in developing a child's self concept and confidence.

All teachers expressed the belief that children needed physical education at least 30 minutes a day. Some primary teachers (K-1) suggested additional free play time when the children were restless. It is reassuring to discover how much teachers value activity for children. This reassurance is offset, however, by the discovery from teachers that

TABLE 24

GOALS TEACHERS CHOSE FOR CHILDREN PRIOR TO INTERVIEWS

TEACHERS	AGE	GRADE	YRS.	PREP.	GOALS
A	33-42	K	11-15	3+	Self-expression, cooperation, learn movement skills, cardiovascular improvement
B	53-62	1	25+	3+	Development of motor skills
C	53-62	1	25+	1	Cooperation and coordination
D	23-32	2	6-10	1	Release of tension, socialization muscle and body control
E	43-52	3	21-25	3+	Release of tension, coordination
F	33-42	5	6-10	2	Fun, cooperation, develops body, emotional outlet
G	23-32	4	6-10	1	Cooperation, tension release, develops the body, cardiovascular improvement
H	23-32	5	6-10	1	Develop muscles, self-worth, and skill
I	33-42	1(S)	6-10	1	Develop skills, coordination, muscles, and explore the environment
J	33-42	2(S)	0-5	2	Develop fine and gross motor skills, cooperation, and group interaction

because of added pressure to spend more time in the traditional academic areas, children sometimes do not receive the state-recommended minimum of 30 minutes a day of physical activity. This problem was especially evident in interpreting the answers of teachers in grades four and five.

Environmental factors affecting teacher planning included those listed in Table 25.

TABLE 25

ENVIRONMENTAL FACTORS TEACHER SAY AFFECT PLANNING

TEACHERS	FACTORS
A	Indoor Space
B	Weather
C	Indoor space inadequate
D	Weather
E	Indoor space inadequate
F	Weather and play area
G	Play space indoors
H	Indoor space is small; must remain quiet
I	Indoor space inadequate
J	Behavioral control

The following common factors emerged, inadequate indoor space, the weather, and the need for behavior control with particular students. Teachers felt that the supply of equipment at the school was adequate.

The variables that teachers perceive as influencing their value orientation toward physical activity both for themselves and for the children they teach include time allotment for both self and child, space

needed for activity, interest in certain activities, and goals of physical education for children.

Interpretation of Responses from the Interviews

The other framing question in Phase Two was "How do teachers explain the results from their inventory profiles?"

Interview tapes were transcribed and content analyzed in the following ways. First teacher profiles were examined to determine whether they rated the purposes high (7-9), medium (4-6) or low (1-3) for themselves and for children. Appendix L contains teacher profiles for all ten interview teachers. Table 26 shows the demographic data of the interview teachers according to their groups.

Group One included five teachers, A, B, F, I, and J, who gave primarily high ratings for self and high ratings for children on the two inventories. Four of these five teachers are in the 33-42 age group (teachers A, F, I, and J); the remaining teacher (teacher B) is in the 53-and-over group. Four are primary teachers, including one kindergarten teacher (teacher A), two first grade teachers (teachers I and B), and one second grade teacher (teacher J). The other one (teacher F) is a fifth grade teacher. Teacher J has 0-5 years of teaching experience, while teacher I has 6-10 years. Two teachers (teachers A and F) have 11-15 years of experience, while teacher B has over 25 years. All teachers in this group have taken one or more preparatory courses in physical education. Teacher I has one, teachers J and F have two, and teachers A and B have completed three preparatory courses (see Table 26).

Group Two consists of only teacher D. She is in the 23-32 age group, has 6-10 years of experience, teaches second grade, and has one

TABLE 26

INTERVIEW TEACHERS' DEMOGRAPHIC DATA

GROUPS	AGE	GRADE	YEARS	PREP. COURSES
ONE				
A	33-42	K	11-15	3
B	53+	1	25+	3
F	33-42	5	11-15	2
I	33-42	1	6-10	1
J	33-42	2	0-5	2
TWO				
D	23-32	2	6-10	1
THREE				
E	43-52	3	21-25	3
G	23-32	4	6-10	1
FOUR				
C	53+	1	25+	1
H	23-32	5	6-10	1

preparatory course in physical education (see Table 26). This teacher gave medium (4-6) ratings both for herself and the children on the inventories (see Table 27).

Group Three contained two teachers. They rated the purposes medium (4-6) for themselves and high (7-9) for the children on the inventories (see Table 27). Teacher E is in the 43-52 age group, teaches third grade, has 21-25 years of teaching experience, and has had three preparatory courses in physical education. Teacher G is in the 23-32 age group, teaches fourth grade, has one preparatory course in physical education and has 6-10 years of teaching experience.

Group Four also has two teachers, C and H. These teachers rated the purposes on the inventories low for self and high for the child (see Table 27). Teacher C is in the 53-and-over age group, teaches first

grade, has 25 or more years of teaching experience, and has one preparatory course in physical education (see Table 26). Teacher H is in the 23-32 age group, teaches fifth grade, has 6-10 years of experience, and has one preparatory course in physical education (see Table 26).

Before proceeding to the discussion of how the teachers explained their inventory results, a closer examination of how they rated the purposes is needed. It has been previously mentioned that teachers were grouped according to how they rated the purposes for themselves and for the children.

Table 27 shows these groups and their ratings for all teachers on both inventories. On the SELF-PPMMI, teachers in Group One were quite consistent in the number of high, medium, and low ratings they gave. Teacher F was the only teacher not to give any low ratings and gave the highest number of high ratings. When examining the CHILD-PPMMI ratings of Group One, consistency is evident again. The number of ratings on the CHILD-PPMMI in the high range was greater than the number of high ratings on the SELF-PPMMI for Group One. Teacher D, the lone member of Group Two, rated the purposes in the medium range on both inventories, with a higher number of ratings in the low range on the SELF-PPMMI. Group Three teachers, E and G showed a medium orientation on the SELF-PPMMI and a high orientation on the CHILD-PPMMI. Only one low rating was recorded on either inventory. Group Four had responses that were quite different

TABLE 27

NUMBER OF PURPOSES TEACHERS RATED HIGH, MEDIUM AND LOW ON THE SELF-PPMMI AND THE CHILD-PPMMI

TEACHERS	SELF-PPMMI			CHILD-PPMMI		
Group One (High-High)	(7-9) H	(4-6) M	(1-3) L	(7-9) H	(4-6) M	(1-3) L
A	16	2	4	18	2	2
B	15	3	4	14	6	2
F	19	3	0	21	1	0
I	14	3	5	13	7	2
J	14	3	5	12	6	4
Group Two (Med.-Med.)						
D	0	15	7	8	13	1
Group Three (Med.-High)						
E	7	15	0	14	7	1
G	8	14	0	14	8	0
Group Four (Low-High)						
C	4	8	10	11	8	3
H	1	6	15	16	6	0

from the other groups. Teachers C and H had a high number of ratings in the low range on the SELF-PPMMI, which was distinctly different from any other group. Their high number of ratings in the high range on the CHILD-PPMMI was in accordance with the other groups.

In summary, interview teachers can be grouped into four categories: (a) those who rated the purposes high for themselves and for children, (b) those who rated the purposes medium for themselves and for children, (c) those who rated the purposes medium for themselves and high for

children, and (d) those who rated the purposes low for themselves and high for children. Teacher D is the only teacher who did not rate the purposes high for the child. The other teachers rated the movement purposes consistently high for children with few ratings in the low range (1-3).

Responses for each group were examined in the following ways:

1. Common purpose(s) were identified that were rated high (7-9) by all interview teachers.
2. Reasons these purpose(s) were rated high were outlined.
3. Common purpose(s) were identified that were rated low by all interview teachers.
4. Reasons these purpose(s) were rated low were outlined.

Purposes Rated Highest by Interview Teachers on the SELF-PPMMI

A tally was made of all the purposes to which teachers gave the highest possible rating (see Table 28). In some cases this involved teachers giving more than one purpose the highest rating. If a teacher gave a 9 to four purposes, all of these purposes are tallied. The top purpose was circulo-respiratory efficiency, rated by five of the ten teachers with the highest score. Three purposes given the top rating by four teachers were joy of movement, movement efficiency, and aliveness. All of these purposes came from the key concept of INDIVIDUAL DEVELOPMENT. Three teachers gave the highest score to these three purposes from INDIVIDUAL DEVELOPMENT: weight control, mechanical efficiency, and musculo-skeletal efficiency. Purposes rated high by two teachers include catharsis, self-knowledge, and self-integration, all from INDIVIDUAL DEVELOPMENT; and attractiveness and leadership from

SOCIAL INTERACTION. For themselves teachers valued the health-related purposes over the environmental and social ones. Every purpose, except movement appreciation, expression and challenge, was rated with the highest score by some teacher.

Table 28 shows the purposes ranked according to the number of teachers who rated each one highest and the reasons teachers selected them. Circulo-respiratory efficiency was a top movement purpose because teachers felt exercising for this purpose helped keep them healthy. One particular teacher stressed this purpose because there was a history of respiratory problems in her family. Movement efficiency was chosen as a top purpose by teachers because they felt it improved their coordination; others felt it helped them conserve energy. Joy of movement was important for several reasons: to get a high from activity, to derive pleasure, and to have fun. Aliveness was important to these teachers; participating in physical activity for this purpose gave them a sense of well-being. Weight control was chosen as a top purpose for participation in physical activity as a preventative health measure. Teachers rated mechanical efficiency high because activity which stressed this purpose saved time and kept them from getting tired. Catharsis was important as a release from frustration and tension. Musculo-skleletal efficiency was cited as an important purpose as a health benefit; teachers felt that the stronger the muscles the less prone they were to injury. They felt that by stressing the purpose of self-knowledge they were able to identify their own limitations. Those who rated self-integration high did so because they expressed beliefs in the total development of the

TABLE 28

NUMBER OF TEACHERS WHO RATED PURPOSES HIGHEST ON THE SELF-PPMMI

PURPOSES	PPCF CONCEPT	NO. OF TEACHERS RATING	REASONS
Circulo-respiratory efficiency	ID	5	Helps to become healthy. History of family problems.
Movement efficiency	ID	4	To be coordinated.
Joy of movement	ID	4	To derive pleasure.
Aliveness	ID	4	Gives sense of well-being
Weight control	ID	3	Preventive health reason
Mechanical efficiency	ID	3	Saves time
Musculo-skeletal efficiency	ID	3	Prevents injuries.
Catharsis	ID	2	Releases tensions
Self-knowledge	ID	2	To identify limitations
Self-integration	ID	2	To develop total person
Attractiveness	SI	2	Social pressure
Leadership	SI	2	Part of my role to child
Self-transcendence	ID	1	To enjoy new activities
Object Manipulation	EC	1	To maintain hand-eye coordination.
Spatial Orientation	EC	1	To be aware of my surroundings.
Teamwork	SI	1	Cooperation
Competition	SI	1	To keep up with society.
Participation	SI	1	To have fun.
Cultural Understanding	SI	1	To make us more knowledgable about other cultures

individual. Attractiveness was cited as a top purpose because society has put so much stress on this ideal.

Purposes Rated Lowest by Interview Teachers on the SELF-PPMMI

A tally was made to determine to which purposes teachers gave the lowest ratings. Table 29 shows these purposes ranked according to the number of teachers who rated each one lowest and the reasons teachers gave them the lowest ratings.

TABLE 29

NUMBER OF TEACHERS WHO RATED PURPOSES LOWEST ON THE SELF-PPMMI

PURPOSES	PPCF CONCEPT	NO. OF TEACHERS RATING	REASONS
Self-Transcendence	ID	4	Did not understand
Challenge	ID	4	Don't need a challenge
Object manipulation	EC	3	Don't enjoy activities requiring manipulation
Cultural Understanding	SI	3	Did not understand
Attractiveness	SI	2	Real person is most important.
Leadership	SI	2	Don't like a leadership role in physical activity
Spatial orientation	EC	1	I am aware of my environment
Competition	SI	1	I prefer comradeship
Teamwork	SI	1	Associated with the concept of competition
Self-knowledge	ID	1	I know my limitations
Participation	SI	1	No time to participate

Four teacher gave self-transcendence and challenge the lowest ratings. Both are from the INDIVIDUAL DEVELOPMENT key concept. Most cited not understanding the purpose of self-transcendence and that their misunderstanding contributed to their low rating. Some teachers rated

challenge low, because they did not feel they needed a challenge in the physical activities in which they participated. They enjoyed doing them for fun. Three of the ten teachers rated object manipulation and cultural understanding low for themselves. Reasons given were that they did not enjoy activities that required manipulation of objects, and that they did not understand the statement relating to cultural understanding. The two teachers who rated attractiveness low felt that this purpose should not be stressed because the way a person looks should not be a barrier; it is the inner person that is important. Leadership was rated low by two of the teachers because they did not enjoy the leadership role in physical activities. Other purposes given the lowest score by individual teachers can be seen in Table 29. Low ratings were given to six of the eight purposes in the SOCIAL INTERACTION key concept, but to only three of the twelve purposes in INDIVIDUAL DEVELOPMENT. Both of the purposes in ENVIRONMENTAL COPING received low scores.

Purposes Rated Highest by Interview Teachers on the CHILD-PPMMI

A tally was made to determine which purposes were rated with the highest score by all interview teachers on the CHILD-PPMMI. Table 30 shows these movement purposes ranked according to the number of teachers who rated each one highest and the reasons teachers rated them the highest. Four purposes were rated with the highest score by five of the ten teachers. Among these are three movement purposes from the key concept of INDIVIDUAL DEVELOPMENT: mechanical efficiency, movement efficiency, and joy of movement. The fourth top purpose is participation from the key concept of SOCIAL INTERACTION. Mechanical efficiency was

TABLE 30

NUMBER OF TEACHERS WHO RATED PURPOSES HIGHEST ON THE CHILD-PPMMI

PURPOSES	PPCF CONCEPT	NO. OF TEACHERS RATING	REASONS
Mechanical efficiency	ID	5	Helps develop skills
Movement efficiency	ID	5	Use less energy.
Joy of movement	ID	5	Fun for children.
Participation	SI	5	Child needs activity
Musculo-skeletal efficiency	ID	4	Child in growth stage
Circulo-respiratory	ID	4	Basis for good adult health
Aliveness	ID	4	Lowers child's depression level
Object manipulation	EC	4	Relates to academic achievement and develops hand-eye coordination.
Catharsis	ID	3	Release of frustration
Competition	SI	3	Need health development of this concept. Stres individual competition.
Self-knowledge	ID	3	To know limitations.
Self-transcendence	ID	3	Important to have new experiences
Expression	SI	2	Need to let personality show
Self-Integration	ID	2	Need to develop total child
Spatial Orientation	EC	2	To be aware of environment
Teamwork	SI	2	To learn cooperation
Weight control	ID	1	To help individuals with this problem.
Challenge	ID	1	To help child strive to reach higher goals.
Leadership	SI	1	To foster social skills
Cultural Understanding	SI	1	To learn about other cultures.
Movement Appreciation	SI	1	To improve their appreciation of movement

rated high because teachers felt it helped develop the basic skills that children need. They chose movement efficiency as a high priority purpose because they felt children would use less energy if they were more efficient. Joy of movement was cited as a high priority purpose because teachers felt children should have fun, and they rated participation as one of the top purposes because they felt children need activity. Four purposes were rated with the top score by four teachers: musculo-skeletal efficiency, circulo-respiratory efficiency, aliveness, and object manipulation. Cited as a reason for these top selections was the idea that children were in the growth stages and would need musculo-skeletal development and circulo-respiratory development at this time as a basis for later life. Several teachers felt stressing the aliveness purpose helps to lower a child's depression level. Many times teachers mentioned a positive relationship between academic performance and good coordination. They felt stressing activities involving object manipulation would have a chance to enhance academic performance. One teacher thought that good experience in object manipulation improves children's observational skills.

Three teachers rated four purposes with the top score: catharsis, self-knowledge, and self-transcendence from the key concept of INDIVIDUAL DEVELOPMENT and competition from the key concept of SOCIAL INTERACTION. Catharsis was cited as an important purpose of physical activity as it could release tension. When asked why competition was rated high, teachers responded that they needed to stress a healthy development of this concept because children were being exposed to bad examples in some

Little League activities. Many teachers emphasized the importance of stressing individual competitive activities such as those where children try to do better than they did last week, not just trying to beat someone else. Self-knowledge and self-transcendence were chosen as important purposes by these teachers because they felt children needed to know their limitations and needed to experience new things. Two teachers rated four purposes with the top score: expression, self-integration, spatial orientation, and teamwork. The remaining four purposes from the framework were rated high by only one teacher. Reasons for these choices can be found in Table 30.

In summary, more teachers rated purposes from INDIVIDUAL DEVELOPMENT with the highest score than from any other key concept, although they did think purposes from the other two key concepts were important as shown in their selection of several. These teachers showed concern with the total development of the child as evidenced by their reasons for selection of the top purposes.

Purposes Rated Lowest by Interview Teachers on the CHILD-PPMMI

A tally was made of the 22 movement purposes to determine to which purposes teachers gave the lowest scores. Table 31 shows the purposes ranked according to the number of teachers who rated each one the lowest and the reasons teachers rated them the lowest. The purpose rated the lowest by the greater number of teachers was cultural understanding from the key concept of SOCIAL INTERACTION. Three teachers from the ten interview teachers gave this purpose the lowest score. Two did not

TABLE 31

NUMBER OF TEACHERS WHO RATED PURPOSES LOWEST ON THE CHILD-PPMMI

PURPOSES	PPCF CONCEPT	NO. OF TEACHERS RATING	REASONS
Cultural Understanding	SI	3	Did not understand this. Not stressed in physical activity experiences.
Attractiveness	SI	2	Inner person should be stressed.
Weight control	ID	2	Most children don't have this problem.
Circulo-respiratory efficiency	ID	2	Children are active enough.
Challenge	ID	2	Feel child does not need the pressure.
Self-knowledge	ID	1	Causes children to boast
Self-transcendence	ID	1	Did not understand this
Self-integration	ID	1	Did not understand this
Object manipulation	EC	1	Need less stress here and more on body coordination
Spatial orientation	EC	1	Did not understand this
Expression	SI	1	Focus on this in art and music, not physical activity
Leadership	SI	1	Will be developed without planning for it.
Movement Appreciation	SI	1	Child can not comprehend at early age.

understand the purpose as written and the other teacher felt that physical activity was not the place to stress cultural ideas. Four purposes were rated with the lowest scores by two teachers: attractiveness, weight control, challenge, and circulo-respiratory efficiency. Teachers felt what a child looks like is irrelevant; it's the inner person that counts. Many thought children do not have weight problems, and since children are so active naturally they also would not stress circulo-respiratory efficiency. Challenge was rated with the lowest score because teachers felt pressures should not be placed on children when they are just developing skills. Eight other purposes were rated with the lowest score by individual teachers. These reasons can be seen in Table 31.

In summary, teachers gave the lowest scores to purposes in all three key concepts. Some purposes were rated with the lowest score because of semantic difficulties as expressed about cultural understanding, self-integration and self-transcendence.

Teacher Explanations of the Interview Data Profiles

During the interviews teachers were asked to give reasons they rated certain purposes high and certain purposes low. They were also asked to comment on the gaps between how they rated the purpose for themselves and how they rated the purpose for children. In this report of findings, teachers have been grouped according to how they rated the purposes for themselves and for children. How the teachers explained their inventory response will be discussed according to these groups.

Group One: Teachers Who Rated the Purposes High for Themselves and High for Children

The group was comprised of five of the ten interview teachers. Four of the five teachers are in the 33-42 age group and four of the five teach in the primary grades (K-2). All but one of the teachers has had two or more preparatory courses in physical education. The number of years of teaching experience varies across the variables used in the study.

Explanation of Self-Related Purposes. When asked which purposes they valued the highest and which they valued the lowest on the SELF-PPMMI, teachers in this group consistently rated purposes high from the INDIVIDUAL DEVELOPMENT key concept and low from the SOCIAL INTERACTION key concept. Common purposes rated with the highest scores were weight control, joy of movement, catharsis, and musculo-skeletal efficiency. Purposes rated with the lowest scores were cultural understanding, self-transcendence, and challenge. All of these purposes were rated high or low by more than one teacher from the group. Individual teachers chose other purposes in the high and low ranges and when asked to comment on the reasons, they responded with the following statements:

Teacher A: "Several purposes were important to me--self-knowledge because participating in physical activities helps me find out about my limitations. Weight control is important because stressing it helps keep me in shape. When you exercise it helps you relieve tension and frustration, that's why I rated catharsis high. I gave teamwork a high rating because I feel physical activity is an area where you can learn to

work with other people. If I wanted to learn about cultures of other places, I would read about it; that's why I rated cultural understanding low. I rated challenge low because I don't feel it's a necessity to test myself. I feel like that at this point in my life I know what my limitations and my abilities are. I rated self-transcendence low because I didn't understand it, but now that you have explained it, I think it would be nice to experience peak moments."

Teacher B: "I rated movement efficiency and musculo-skeletal efficiency high because I don't want to come off as being uncoordinated. I felt weight control was important, because if you are overweight you get lazy and don't have much pride. I liked cultural understanding because I want to look at the sports and activities of other countries; it helps me expand my horizons. I rated self-transcendence low because I didn't understand it. About attractiveness, I do like to improve my personal appearance, but I guess I was thinking that in itself it should not be a barrier, because everyone is not attractive. I am more concerned about the inner person."

Teacher F: "I rated joy of movement high because when I am active I feel better about myself. I would stress catharsis because being active makes me feel more relaxed. It allows me to release tension. I rated participation low, because at this point in my life my time is limited. I have a young child to care for and work too, and I don't get to be as active as I would like to be. I rated self-transcendence low because I didn't know if that meant did I push myself or what. When I watch the exercise programs on T.V. and she says things like, 'when you feel tired, don't stop'; well, I stop." Teacher F's ratings were mostly in the lower

end of the high range with 15 purposes rated with a seven, and were lower than the other teachers in this group.

Teacher I: "I feel self-integration is an important purpose to consider when participating because it is exercising for a sense of total well-being; it is not only the muscular development but also a sense of being spiritually well and mentally well. I rated musculo-skeletal and circulo-respiratory efficiency high because I feel exercise improves these and in turn that does help keep you healthy. Aliveness was important to me because after I exercise, I really am able to work better; I feel more alert. I rated cultural understanding low because I did not understand the statement. When I exercise I really don't think about cultural things. I think more in terms of health."

Teacher J: "The most important purpose for me was the joy of movement. The activities I participate in give me great pleasure. The actual joy of participating gives me a high. The INDIVIDUAL DEVELOPMENT purposes are all very important to me, because I am conscious about my level of health. I don't feel physical activity is the place to develop social skills so I gave purposes like cultural understanding, expression, and movement appreciation low scores. I think if you're going to get involved in cultural things you get involved in philosophy and ideas. When I start to study a culture or a group of people, I don't look at them for their movement. It is not of interest to me."

Explanation of Child-Related Purposes. When rating the purposes as objectives of physical activity for children, this group of teachers gave more high scores than any of the other groups. Teacher J was the only teacher to give more than two low ratings (1-3) and she gave four.

Teacher F had the most high scores with 21 of the 22 purposes rated in that range (7-9). Several common purposes were rated with the highest scores by these teachers. Among them were joy of movement, movement efficiency, musculo-skeletal efficiency, object manipulation, and teamwork. Challenge was the one common purpose rated with the lowest score. When these teachers were asked why they rated the purposes as they did, they gave the following responses:

Teacher A: "Children need to feel good and to have fun; therefore, I see joy of movement as being a very important objective of physical activity. I feel that teamwork is also a purpose that should be stressed. Children must be able to work with other children and get along. Movement efficiency and musculo-skeletal development are important because they aid in motor skill development. I rated challenge lower than the others because I don't feel like a child needs to feel stress while doing physical activity. I think children should feel comfortable and at ease. I rated competition high, but I want to explain why. I want to foster healthy competition among groups not between groups. Competitive activities can develop leadership and social skills. My main concern is that you don't raise the level too high. Children enjoy competing against each other, but sometimes I don't feel that they know what they've accomplished or when they've won. It's the thrill, more of an exciting type of thing, for them than it is competitive. I rated movement appreciation low because I feel like they're too young to understand the concept of appreciating movement."

Teacher B: "I would stress several of the purposes in the INDIVIDUAL DEVELOPMENT category like movement efficiency,

musculo-skeletal efficiency, mechanical efficiency, and circulo-respiratory efficiency because they are necessary areas to build on with six-year-olds in influencing their growth and development. I rated object manipulation high because I see a connection between coordination and positive performance in academics. I also feel children learn observation skills when they practice manipulative skills. In the social area I rated leadership and teamwork high for these reasons. You have some introverted children and you need to really set up a monitoring program to help them have a little confidence with what they can do. I rated challenge low because I think about the Little League situation where there is too much emphasis put on challenge and the children are falling down in other areas. I rated self-transcendence low because I didn't understand what 'peak experiences' were."

Teacher F: In accordance with other teachers in this group, teacher F also valued the joy of movement purpose. She feels that "if children don't enjoy the activities they do, they are not going to do them." She rated participation high and related the reason to her own childhood. "I want the children to have more opportunities. When I was growing up activities were limited. I rated weight control high because I have some fifth graders with a weight problem. Increasing their activity level could help them with this problem. I really drew a blank as I did this inventory when I read the statement on object manipulation. I rated it low because I could only think of a few activities like hand-writing where it would be beneficial. Now that we've discussed it, I would change my rating and make it higher."

Teacher I: For children, teacher I rated joy of movement, musculo-skeletal efficiency, object manipulation, and self-knowledge with

high scores. When asked about the reasons she responded, "Children should have fun when participating; that's why I rated joy of movement and participation high. Musculo-skeletal efficiency is important because children need muscle strength and exercise helps tone their bodies. Object manipulation is important as an avenue to develop hand-eye coordination which is so important to children in the younger grades. Children need activity to explore their environment and discover what they can do which is my reason for rating self-knowledge high. I didn't feel weight control was a problem with the first graders I teach so I rated it lower. I was probably wrong in rating circulo-respiratory efficiency low. At the time I thought that children get enough activity to bring it out. I think you probably do need to stress it."

Teacher J: Teacher J was selective in her ratings of the purposes for children as there are ratings in all ranges, but the majority are in the high range(7-9). About joy of movement she stated, "activities in which children experience pleasure make them feel good about themselves. Children need to have fun. Aliveness too is important because if children keep their energy levels up they won't get depressed. I feel object manipulation and movement efficiency coordinate high with academic proficiency. Circulo-respiratory efficiency is an important purpose because what children develop now will be the basis for what they have as an adults. I rated self-knowledge and challenge low. With self-knowledge, if children know how good they are they begin to establish themselves as dominant because of that fact. On the other end of the scale I don't want children to accept their limitations and never

go on and try to overcome them. As for challenge, I associated it with aggression which makes children hyper. Children don't need added pressures on them."

Group Two: Teachers Who Rated the Purposes Medium for Themselves and Medium for Children

Teacher D is the only teacher in this group; in fact, she is the only teacher in the interview sample who rated the purposes for children in the medium range (4-6). All of the other teachers rated a higher percentage of the purposes for children in the high range. Teacher D rated 13 of the 22 purposes in the medium range for the child. She rated 15 of the 22 purposes of physical activity for self in the medium range and none in the high range.

Explanation of Self-Related Purposes. On the SELF-PPMMI, the highest rated purposes were catharsis, leadership, and participation and the lowest were weight control and challenge. When asked why she rated the purposes the way she did, she responded with these remarks:

Teacher D: "The purposes in the social area are most important to me. You know we're all animals in a sense and I just think we need each other. We need to do things together, get along, and enjoy ourselves. We learn from one another. I see myself as a leader. That's why I rated leadership high. I gave catharsis and participation higher scores because participating to release tension is important for me too. I don't feel that I need a challenge and I don't have problems with my weight, so I gave those purposes low scores."

Explanation of Child-related Purposes. Teacher D rated the purposes much higher for the children than she did for herself, but the majority

of the ratings still fell in the medium range. The purposes she rated highest were different ones than those chosen by teachers in group one. When asked why she rated these purposes as she did, these were her answers:

Teacher D: "I rated expression high because it's just another way of letting your personality out. I think children need activity where they can just be themselves. I rated competition high because we live in a competitive society. I tell my children, if you don't do your best then they will get someone who will. I rated attractiveness low because it comes out through all the other things children do. It's the inner person that's important anyway; the way you carry yourself, the way you behave, and the way you act toward others. I rated leadership lower for children because I feel it is one of those things that takes care of itself. Children will emerge as leaders; it's not something you have to force." Teacher D shows great concern for the socialization objectives for self and child, which is different from the ideas of teachers in the other groups.

Group Three: Teachers Who Rated the Purposes Medium for Themselves and High for Children.

The demographic data of these two teachers were quite different from each other, as were the purposes they chose to give high and low scores. Even though these things were different, the number of purposes they rated in the high, medium and low ranges on the SELF-PPMMI and the CHILD-PPMMI were almost identical.

Explanation of Self-Related Purposes. When asked to explain why they rated the purposes as they did, these two teachers responded with these comments:

Teacher E: "My husband has been on a diet and I just got into some of it to help him which made me realize how important exercise is for this purpose. I rated movement efficiency high because in order to teach school and get it all done, you just have to move it on out, you can't just creep around. I rated cultural understanding high because I like to look at everybody's background and see where they come from and learn about their ways. I gave attractiveness a high score, because I see physical activity as a way to make a person more attractive by helping them keep in shape. I enjoy square dancing and rated catharsis high because my dancing helps me release a lot of tension. That kind of activity is also good for my heart and lungs, that's why I gave circulo-respiratory efficiency a high rating. I rated teamwork low because I associated it with competition, like 'my team's got to win'. I really feel lacking in that kind of thing and that's probably what held me back there. You know I rated competition high, but at the time I was thinking about the children. I know I'm not good at competitive activities, but I want to provide activities to help them become good. I would rate it lower for myself."

Teacher G: Even though her ratings were in the same value orientation categories as teacher E, teacher G had some different feelings about the way she valued some of the purposes. She stated, "I rated weight control high, not because I have a problem with it now, but I feel like it's important that I take care and try to prevent any problem in that area. I rated circulo-respiratory efficiency high because there is a history of problems in this area in my family. This makes me more aware of the value of this purpose. Two purposes that I

rated lower were leadership and object manipulation. I don't care to do any activities that involve manipulation of objects; I don't like that. I gave leadership a lower score than the others because I don't see myself as taking a leadership role in physical activities."

Explanation of Child-Related Purposes. Both teachers in Group Three rated the purposes higher for children than for themselves (see Table 27). Again the number of scores in the high, medium, and low ranges was almost identical. As they talked about the purposes they valued the highest and lowest, it became evident that teacher E stressed purposes from both INDIVIDUAL DEVELOPMENT AND SOCIAL INTERACTION, whereas Teacher G valued those from INDIVIDUAL DEVELOPMENT more. When asked to comment on their reasons, they responded with these remarks:

Teacher E: "Catharsis was a top purpose for me because I feel children need activity to release tension. They also need to have opportunities to experience new and exciting activities, which is why I rated self-transcendence high. Object manipulation is an important objective for the child. By stressing this purpose, a child has more opportunities to improve his coordination. I feel that it helps them develop better handwriting skills. I would stress several purposes in the SOCIAL INTERACTION key concept, attractiveness, leadership, teamwork, competition, and participation. I feel that if children can play together and know the rules about good sportsmanship and being leaders, then I think it runs over into your classroom. I stress individual competition; for example, 'see if you can jump rope more times today without missing than you did last week.' I think that's more important than playing a ball game and beating another team. My lower ratings were in weight control and circulo-respiratory efficiency. I don't have any

children in my class with weight problems, so that's probably why I rated that purpose lower. I feel children run and rip and tear all over the place and get their hearts exercised that way. Give them a chance to be active and they will."

Teacher G: "I rated musculo-skeletal efficiency and mechanical efficiency high because I felt that they are important to the growth and development of the child. These children are at a clumsy age. Joy of movement is also important because children need to get out and enjoy themselves and I think physical education is so much different from the other areas of school; they can experience more freedom in this area. I rated cultural understanding low because I felt it just wouldn't fit in. I didn't see attractiveness as being an important purpose to stress either. All children are attractive to me as they are."

Group Four: Teachers Who Rated the Purposes Low for Themselves and High for Children

The two teachers in this group have demographic data from the extremes. Teacher C is the oldest, teaches first grade, and has 25 or more years of experience, whereas teacher H is in the youngest group (23-32), teaches fifth grade and has 6-10 years of experience. Both teachers have had one preparatory course.

Explanation of Self-Related Purposes. Teacher H was atypical in that she did not value the purposes high for self as did the majority of teachers in the younger group from the total sample. When asked to comment on the purposes they valued high and low, these teachers responded with the following comments:

Teacher C: "Catharsis is important to me. When I get frustrated in school I find if I move around it relieves it a bit. I feel much better when I take my walk every day. Leadership is important to me because I do a lot of role playing with the children and I like to be able to set examples. Object manipulation is important because I enjoy doing a lot of things with my hands, like gardening. I rated challenge lower because I don't care if people think I'm courageous or not. I rated attractiveness and weight control low, because I am not actively doing anything to improve those areas. I'm tired when I leave school and I'll say, 'Oh, I'll go exercise tomorrow.' I'm a great 'put-ter-off-er'. I guess I rated a lot of the purposes with low scores because realistically I am just not a physically active person and I'm making no effort at this time to pursue those things."

Teacher H: Teacher H rated the purposes even lower than teacher C, having 15 of the 22 scores fall in the low range (1-3) and only one in the high range (7-9) (see Appendix L for teacher profiles). Her explanation revealed that she was not actively doing any physical activity and in being honest she rated the purposes low. She and teacher C seemed to express the same sentiments as to the lack of time they had to participate and that this affected their ratings. When asked to explain why she felt as she did about the purposes she rated high and low, teacher H gave these answers: "I thought that since I am not doing these things, I must not feel strong about them. When I did exercise, I felt that my cardio-vascular system improved, that is why I rated circulo-respiratory efficiency with one of my higher scores. I also felt like I had more energy. This explains my higher rating of aliveness.

Object manipulation was not important to me because I don't enjoy participating in activities that require that skill. The time factor and the fatigue factor are the two main reasons I rated a lot of these purpose statements low."

Explanation of Child-Related Purposes. Teachers in this group gave much higher ratings on the CHILD-PPMMI than they did on the SELF-PPMMI. Both stressed purposes from the INDIVIDUAL DEVELOPMENT key concept. When asked to explain why, they gave these comments.

Teacher C: "The purposes I rated high in INDIVIDUAL DEVELOPMENT all go together in developing coordination. At this age, these children are very clumsy and need activities stressing movement efficiency, musculo-skeletal efficiency, and mechanical efficiency. Catharsis is extremely important; children get frustrated when they have to sit for so long. They get real tense and irritable at us; sometimes they cry. They need to get out and just run. I stress the competition purpose too, but it's mostly at the individual level. I want them always to try to do their best. Children are so wrapped up in the win-lose idea; I try to down-play that. I rated expression high because at this age children need to have experiences to explore what they can do. I did not rate weight control as high as some of the others, because I don't feel first graders have a problem there. I also rated leadership low; the children are so self-centered at this age that it is difficult to stress those qualities."

Teacher H: "I rated movement efficiency and musculo-skeletal efficiency high, because these children are in the growth stage and they need to develop muscle tone and strength to make their movement

efficient. Mechanical efficiency is important in helping children develop specific motor skills at this age. I rated competition high, because I feel children need healthy competition to develop pride. I try to get this feeling across to them--'I strive not to prove myself everyday but to improve myself'. I don't see cultural understanding as being as important here, because we work on it in some other areas. I focus on expression in other things too, like art and music."

In summary, teachers were able to explain why they gave high or low scores to certain movement purposes. They gave insights into the importance of these purposes to the child's development, to their own teaching, and to their own lives. Purposes from the INDIVIDUAL DEVELOPMENT key concept seem to be important to the teachers themselves and also important as objectives of physical activity for children. Teachers showed balance when rating the purposes as objectives for children by explaining that children need stress on movement purposes from all three key concepts to allow for total development. Teachers were selective in purposes they value for themselves, choosing to stress those purposes which fit their own lifestyles. Those who expressed the fact they were very active seem to stress more of the fitness purposes such as circulo-respiratory efficiency, movement efficiency, and catharsis. Those who were not as active stressed the joy of movement, aliveness, and such social interaction purposes as attractiveness, and movement appreciation. Teachers in these groups seem to know what they like and dislike for themselves and are able to express what they feel is important for the children they teach.

CHAPTER V

SUMMARY, DISCUSSION AND IMPLICATIONS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Before attempting any instructional activity, perhaps teachers need to assess how they feel about a particular task; this is especially important for the elementary teacher who is faced with the instruction of a variety of subjects. Since there is a wide range of basic skills that must be taught, teachers often feel incompetent in one or more areas, and since there is often a fear of the unknown, it is important to discover the personal values of teachers for all instructional areas. Brubaker (1970) stated, "Any decision made by a teacher is a reflection of his belief system. A teacher's beliefs are his normative value judgments; that is, what he thinks should be the case" (p. 11). Therefore, this study explores the attitudes of elementary teachers toward physical activity for themselves and for the children they teach. Using information developed from the Purpose-Process Curriculum Framework, a published curriculum model, these values were measured by responses from two inventories (the SELF-PPMMI and the CHILD-PPMMI), and from personal interviews.

In Phase One of the study, all 150 teachers of grades K-5 in the High Point city schools were invited to participate in the study to assess their attitudes toward physical activity for themselves, and for the children they teach. Of this group of 150 teachers, 120 completed both inventories.

In Phase Two of the study 10 of the 120 participating in the inventory phase were interviewed and asked to comment on their written responses. These ten teachers were from a selected school. Although three schools met the criteria for the interviews, one school (school C) was selected because 10 of the 16 teachers participating in the inventory phase volunteered to be interviewed, and because all grades, age groups, and groups of years of teaching experience and number of preparatory courses were represented.

Data from the inventories were the Likert scale scores with 1 being "not very meaningful" and 9 being "very meaningful." To compute the mean score for each of the 22 purpose statements, the condescriptive program from SPSS-X was utilized. For purposes of discussion, the investigator used the mean scores and ranked the purposes from highest to lowest. Mean scores for each purpose were established for both inventories on the following independent variables: (a) age, (b) grade taught, (c) years of teaching experience, and (d) number of preparatory courses in physical education. The variables of "aid of a physical education specialist" and "number of times teachers plan the lesson" were not used in the results because all teachers in the system had the aid of a specialist twice a week and the planning time varied only slightly. The gender variable was eliminated due to the insufficient number (2) of males in the teacher group of 150.

In order to investigate the relationship between SELF item scores, and CHILD item scores within the larger group, a Pearson Product Moment Correlation was run to show the relationship between the teachers' ratings of purposes on the SELF-PPMMI and their ratings of purposes on

the CHILD-PPMMI. For the 10 interview teachers, profiles were developed from the inventory responses to depict their value orientations of physical activity for themselves and for the children they teach. Interview data from tape recordings were content analyzed to identify factors that teachers said influenced their value orientation toward physical activity.

Specifically, the study addressed the following questions in Phase One:

1. How do classroom teachers rate the movement purposes of physical activity for themselves?

2. How do classroom teachers rate the movement purposes of physical activity for the children they teach?

3. Do the variables of age, grade taught, years of teaching experience and the number of preparatory courses in physical education relate to the classroom teachers' rating of the purpose statements about physical activity for themselves?

4. Do the variables of age, grade taught, years of teaching experience and the number of preparatory courses in physical education relate to the rating of the purpose statements they feel are most important for the children they teach?

5. Do classroom teachers hold the same attitudes about physical activity for children as they do for themselves?

The following questions were relative to Phase Two:

1. What are the variables that classroom teachers perceive as influencing their attitudes toward physical activity for themselves and for the children they teach?

2. How do teachers explain the results from their inventory profiles?

A review of the literature was done in three areas: (a) the role of the classroom teacher in teaching physical education, (b) the nature of attitudes, and (c) research utilizing the Purpose Process Curriculum Framework.

A summary of the findings are presented according to the framing questions of each phase. Findings of each framing question are followed by discussion and implications. Based on the population group studied, the following results are given:

Phase One: Group Data Results

Ratings and rankings of purposes for self and child. The results from framing questions one and two of Phase One are summarized in the following:

1. Purposes from INDIVIDUAL DEVELOPMENT were rated higher than purposes from any other key concept on the SELF-PPMMI. Catharsis from INDIVIDUAL DEVELOPMENT received the highest mean score. Other purposes ranked in the top five were circulo-respiratory efficiency, aliveness, weight control, and mechanical efficiency. All were from INDIVIDUAL DEVELOPMENT.

2. When rating the movement purposes as objectives of physical activity for children, teachers rated purposes in the high range (7-9) from all three key concepts. On the CHILD-PPMMI, object manipulation from ENVIRONMENTAL COPING received the highest mean score. Other purposes in the top five were participation from SOCIAL INTERACTION, and catharsis, movement efficiency, and joy of movement from INDIVIDUAL DEVELOPMENT.

3. Cultural understanding from SOCIAL INTERACTION received the lowest mean score on both the SELF-PPMMI and the CHILD-PPMMI.

4. On the SELF-PPMMI, purposes rated as the lowest five were self-knowledge, self-transcendence, and challenge from INDIVIDUAL DEVELOPMENT, spatial orientation from ENVIRONMENTAL COPING, and cultural understanding from SOCIAL INTERACTION.

5. On the CHILD-PPMMI, purposes rated in the lowest five were leadership, cultural understanding, and attractiveness from SOCIAL INTERACTION, and self-integration and weight control from INDIVIDUAL DEVELOPMENT.

In recent years there has been a bandwagon approach to physical fitness. Perhaps, televised communication has aroused awareness; one is not only able to witness spectacular sporting events, but also to receive information from medical specialists from all over the world. The commercial world too is aware of and has popularized health. Health clubs, spas, and sports apparel are marketed. But above all, the modern person has more time than ever before to be concerned with mind and body. With the surge of emphasis on fitness, the teachers in this study may have experienced themselves the joy and satisfaction of physical movement. Therefore, perhaps they stress the health-related purposes because of their own rewarding experiences or because of current popular appeal. As adults, individual health and pleasurable activity seem to be more important than challenge or a cultural experience when participating in physical activity. In contrast, when thinking of children they teach, teachers stress purposes connected with total development which emphasize motor skill development and socialization as well as fun. It is clear

that there is a distinction between what teachers want for themselves and what they want for the children they teach.

Variables' relationship to teachers' ratings of purposes on SELF-PPMMI. The results from framing question three of Phase One are summarized in the following:

AGE:

1. Regardless of age, teachers showed a greater percentage of mean scores in the medium value range (4-6).

2. Teachers in the 33-42 age group rated the purposes with the highest mean scores and teachers in the 53 and over age group had the lowest mean score ratings.

3. Specifically, teachers in the older groups reflected more value for the purposes from the SOCIAL INTERACTION category, and teachers in the younger group valued more purposes in the INDIVIDUAL DEVELOPMENT category.

4. Catharsis was the only purpose given a high rating (7-9) by teachers in all age groups.

GRADE:

1. Regardless of the grade taught, teachers showed a greater percentage of mean scores in the medium value range (4-6).

2. Teachers of the upper grades (4 & 5) rated the purposes with higher mean scores than did teachers of the lower grades (K&1).

3. Teachers of different grades rated the purposes with higher mean scores in the INDIVIDUAL DEVELOPMENT key concept than in any other concept.

YEARS OF TEACHING EXPERIENCE:

1. Regardless of years of teaching experience, teachers showed a greater percentage of mean scores in the medium value range (4-6).

2. Teachers with 16-20 years of teaching experience rated the purposes with the highest mean scores and teachers with 21-25 or more years of teaching experience rated the purposes with the lowest mean scores.

NUMBER OF PREPARATORY COURSES:

1. Regardless of number of preparatory courses, teachers showed a greater percentage of mean scores in the medium value range (4-6), except those teachers with no preparatory courses.

2. Teachers who had no preparatory courses rated the purposes with the highest mean scores.

3. Of those teachers who had some preparatory courses, those who had three or more had the greater percentage of mean scores in the high value range (7-9).

4. Catharsis was the only purpose rated in the high range (7-9) by teachers of all preparation groups.

"Generation gap" seems to be an applicable term when one looks at the variable of age. Younger and older teachers seem to have been influenced by the social umbrellas of their own generation. The younger teachers (under 42) stress individual development more than the older teachers do. Attractiveness and fitness have been a focal point for the "Pepsi generation," and concern for the individual dominated the "me generation" of the sixties. For older teachers, physical fitness was not of prime importance; thus they developed and concentrated on habits that

do not stress physical fitness. This same "gap" holds true for the variable of grade, for teachers of the higher grades (composed of the younger teachers) gave more importance to physical activity than teachers of the lower grades (composed of the older teachers). In this study, age is a factor that should be noted in relation to the years of teaching experience also, for younger (under 42) teachers who may have had 16 to 20 years of teaching experience show higher values for the purposes than older teachers who have over 20 years of teaching experience.

Variables' relationship to teachers' ratings of purposes on the CHILD-PPMMI. The results from framing question four of Phase One are summarized in the following:

AGE:

1. Older teachers rated the purposes with higher mean scores than did teachers of any other age group. Teachers from the other groups showed a greater percentage of high scores in the medium range (4-6).

2. Specifically, older teachers valued the INDIVIDUAL DEVELOPMENT category the highest and younger teachers gave the lowest scores in the SOCIAL INTERACTION category.

3. Purposes with mean scores in the low value (1-3) range were recorded only by teachers in the youngest group (23-32).

4. Common purposes on the CHILD-PPMMI rated high by teachers of all age groups were movement efficiency and catharsis from INDIVIDUAL DEVELOPMENT, participation from SOCIAL INTERACTION, and object manipulation from ENVIRONMENTAL COPING.

GRADE:

1. Fifth grade teachers rated the purposes with higher mean scores than teachers in the other grades and exhibited a high value for purposes in the INDIVIDUAL DEVELOPMENT category. Teachers of all other grades showed a greater percentage of mean scores in the medium value range (4-6).

2. Kindergarten teachers rated the purposes with the lowest mean scores. Most of their low purpose ratings were in the SOCIAL INTERACTION category.

3. Common purposes on the CHILD-PPMMI rated high by teachers of all grades include movement efficiency, catharsis, and joy of movement from INDIVIDUAL DEVELOPMENT; participation from SOCIAL INTERACTION; and object manipulation from ENVIRONMENTAL COPING.

4. Cultural understanding was rated with the lowest mean scores by all groups.

YEARS OF TEACHING EXPERIENCE:

1. Teachers with 16-20 years of teaching experience rated the purposes with the highest mean scores and teachers with 0-5 years of experience rated the purposes with the lowest mean scores. Teachers of all other groups showed a greater percentage of mean scores in the medium value range (4-6).

2. Object manipulation from ENVIRONMENTAL COPING was the only purpose to receive a high mean score from all groups.

NUMBER OF PREPARATORY COURSES:

1. Teachers with no preparatory courses rated the purposes higher than any other group. Teachers who had one preparatory course rated the purposes the lowest. Teachers who had one or more preparatory courses showed a greater percentage of mean scores in the medium value range (4-6).

2. Common purposes on the CHILD-PPMMI rated high by teachers of all groups include movement efficiency, catharsis, and joy of movement from INDIVIDUAL DEVELOPMENT; participation and competition from SOCIAL INTERACTION and object manipulation from ENVIRONMENTAL COPING.

When thinking of the child rather than themselves, the older and the more experienced teachers rated the 22 movement purposes higher than teachers from the other age groups. Perhaps, over the years they have become better able to determine what works well and what children need. They recognize that physical activity is related to positive performance in school and in other phases of children's lives. The older teachers expressed that children are more sedentary as a result of the electronic age ("Pac Man generation"), and that children, more than ever before, need more structured physical activity.

Comparison of teacher ratings on SELF-PPMMI and CHILD-PPMMI. A summary of the results of framing question five of Phase One yields the following:

1. Teachers rated the purposes higher for children than they did for themselves.

2. Purposes from the PPCF which received similar ratings on the SELF-PPMMI and the CHILD-PPMMI inventories were musculo-skeletal

efficiency, self-transcendence, catharsis, expression, and cultural understanding.

3. Purposes from the PPCF which received different ratings on the SELF-PPMMI and the CHILD-PPMMI inventories were circulo-respiratory, weight control, attractiveness, object manipulation and competition.

When comparing item to item responses on both inventories, it is important to note that teachers rated the purposes higher for children than they did for themselves. It is interesting that the purposes rated higher for the self were often marked lower for the child. For example, weight control and attractiveness were rated higher for self, but were not stressed for the children. This seems to indicate that teachers can and do differentiate between their attitudes toward physical activity for themselves and their students. They are aware that fitness for themselves is of a different nature than fitness for the children. Children have not yet experienced years of poor health habits or have not yet been pressured by society to "look good." However, some purposes received similar ratings: catharsis, muscular-skeletal efficiency, and expression because the teacher evidently felt these were priorities, no matter what age; joy of movement, release of tension (catharsis), mechanical efficiency, and participation are valued throughout one's lifetime.

Phase Two: Individual Teacher Attitudes

Variables that teachers say influence their attitudes. The following is a summary of the results from framing question one of Phase two:

1. Teachers varied in the types of activities they chose to participate in, the frequency with which they participated, and the benefits they felt they received from participation.

2. Teachers felt unanimously that children needed physical activity at least 30 minutes during each school day.

3. Time allotment, space, weather, behavior control problems, interests, and developmental level were factors that affected the teachers' selection of objectives for children.

What influences another's attitude is important for anyone dealing with people. The physical education specialist who works with the elementary classroom teacher must be aware of the teacher as an individual. Although group data are important, one must be sensitive to the complexities of the individual. Personal interviews reveal what one cannot discover through direct observation, (for example, feelings, intentions, and ideas). Interviews allow insight into another's perspective. A study such as this is a deliberate attempt to get at a data base about the teachers one is about to work with. Phase two interview participants revealed that factors which contributed toward their attitudes about physical activity were time allotment to participate, particular interests, and benefits derived from activity.

Teachers' explanations of inventory profiles. A summary of the results from framing question two of Phase Two are summarized in the following:

1. Teachers can explain the values they hold about physical activity for themselves and for the children they teach.

2. Teachers can differentiate between their own values toward physical activity and the needs that they perceive for children.

3. Goals teachers selected prior to the interviews paralleled the high responses teachers gave on the inventories.

Sensitivity to group data is important, but so is the attention to the actuality of individual data. Teachers were asked to reflect upon why they rated the 22 movement purposes as they did on both PPMMI inventories. This introspection is essential in helping teachers to know themselves and in helping teacher consultants know the population they are guiding. In the conversations with the ten teachers, the investigator discovered important insights into teacher attitudes about physical activity and teacher planning for activity. Emerging from several interviews was the idea that teachers were able to recognize the relationship between physical activity and the total development of the child. This point is an important one for the physical education specialist to know--that the classroom teacher has such a wealth of experience and expertise to share. The physical education specialist whose expertise is in the motor development area and the classroom teacher who specializes in knowing about child development could have a lot to offer to each other. If both are aware of each other's philosophy and attitudes, collaborative planning for children's physical activity experiences could be facilitated.

Teachers did stress the purposes that reflected the directional goals that they named prior to the interview phase. Release of tension, development of motor skills, and development of cooperation were common directional goals emphasized. Reasons teachers gave for naming these goals show insights into the relationship they felt existed between the development of motor skills and positive academic performance. Teachers

mentioned three movement purposes as being important to skill development: musculo-skeletal efficiency, mechanical efficiency, and object manipulation. One teacher even related that experiences with object manipulation activities improve observation skills because it forces children to attend to things in the environment. Another noted that stressing object manipulation activities helped children develop better handwriting skills. Catharsis is a purpose stressed by many teachers as important due to the short attention span of most children. All teachers recommended a minimum of 30 minutes a day for a structured physical activity period, but many felt children need more time. Primary teachers expressed the need for additional free play for their groups which they felt fosters creativity and exploration of the environment.

The teacher profiles derived from the Purpose Process Curriculum Framework are acceptable vehicles for discussion of teacher attitudes, especially when talking about the similarities and differences between teachers' own attitudes and their attitudes about purposes for children. An interesting point surfaced concerning how teachers felt about competition for themselves and for children. The majority rated competition rather low for themselves and much higher for children. In explaining this difference, teachers said that they participated in physical activity for the fun of it and preferred this recreational approach rather than to place themselves in a win-lose situation. Surprisingly, teachers declared that they rated competition high for children because they thought of it as individual competition where children could strive to do better today than they did last week. They felt that individual competitive activities allow children the

opportunity to set their own goals and work at their own pace. Many teachers talked about the term "healthy competition." Concern was expressed about children being exposed too early to the youth-sports organizations which stress winning and pressure the individual too much. Teachers felt it was their job to foster and stress leadership and cooperation through competitive activities rather than emphasizing the win-lose idea. Teachers felt socialization is an important directional goal, but that it often overshadows the importance of motor skills development.

The individuality of teachers became quite evident in the interviews. Teachers may have rated the same purposes as high as other teachers but for different reasons. Also, certain purposes (self-transcendence and cultural understanding, for example) were valued highly by a couple of teachers and felt to be ambiguous by others. To presume to know what others feel by how they answer an attitude inventory is false. To understand more details of individual teacher behavior one must understand what each feels and the knowledge held.

The results of this study could be useful in setting up strategies for inservice programs in physical education for the classroom teacher. The goals of the inservice activities could center around identification of teacher concerns, selection of curricular goals, strategies to accomplish a particular directional goal, or evaluation of existing curricula in light of the needs of the child. In the interviews, teachers felt comfortable using the purpose aspect of the PPCF to talk about their responses and they could relate to the purposes; therefore, the investigator feels this framework is a viable one to use with this classroom teacher population.

Conclusions

Based on the population studied, the following conclusions are drawn:

1. Teachers do value movement, more highly for children than for themselves.

2. Teachers can differentiate between their attitudes about the purposes of physical activity for themselves and the purposes of physical activity for children.

3. Teachers value physical activity in interdisciplinary learning.

4. All of the movement purposes from the Purpose-Process Curriculum Framework were valued for children by at least one teacher.

5. The purpose aspect of the Purpose-Process Curriculum Framework was a viable tool for discussion with the elementary classroom teacher.

Recommendations for Further Research

Based on the population studied, and the methodology employed in the present study, the following recommendations are made:

1. For comparison, the study should be given to the physical education specialists from the school system used in this research.

2. A population of elementary classroom teachers that has a representative number of males should be chosen to see if their attitudes toward physical activity for themselves and for children are similar or different from the female population of this study. Although one may speculate that role-gender distinctions are gradually fading, Dishman's study in 1975 found a difference in attitude between the sexes in testing attitudes of physical educators, as did Chapman (1974) when testing students' attitudes.

3. A follow-up study should be conducted of the 10 interview teachers to observe their teaching, to have them write lesson plans, and to ascertain the extent to which they actually do things which would seem to reinforce what they say they value for children.

4. Exploration of the use of the SELF-PPMMI and the CHILD-PPMMI as reliable tools to aid in developing inservice training models should be carried out.

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APPENDIX A

PURPOSE ASPECT OF THE

PURPOSE PROCESS CURRICULUM FRAMEWORK

PURPOSE ASPECT OF THE

PURPOSE PROCESS CURRICULUM FRAMEWORK

I. INDIVIDUAL DEVELOPMENT: I move to fulfill my human developmental potential

A. Physiological Efficiency: I move to improve or maintain my functional capabilities.
1. Circulo-Respiratory Efficiency. I move to develop and maintain circulatory and respiratory functioning.
2. Mechanical Efficiency. I move to maintain my flexibility, balance, posture, and alignment.
3. Movement Efficiency. I move to maintain and develop my coordination speed and skill in motor performance.
4. Musculo-skeletal Efficiency. I move to develop and maintain muscular strength, tone and endurance.
5. Weight Control. I move to acquire and maintain an appropriate body composition--the fat-weight to lean-weight ratio.

B. Psychic Equilibrium: I move to achieve personal integration
1. Joy of Movement. I move to derive pleasure from movement experiences.
2. Self-knowledge. I move to discover what I can and cannot do thus increasing my self-understanding.
3. Self-transcendence. I move to have the possibility of experiencing "peak" moments.
4. Catharsis. I move to release tension and frustration.
5. Challenge. I move to test my prowess and courage.
6. Aliveness. I move to increase my energy level and to enhance the qualities of being alive.
7. Self-integration. I move to encourage a physical-mental-spiritual unity and to experience myself as a whole person.

II. ENVIRONMENTAL COPING: I move to adapt to and control my physical environment.

C. Object Manipulation. I move to acquire skill in such things as throwing, catching, striking, and moving heavy objects.

D. Spatial Orientation: I move to develop an image of my body, the positions, it assumes and how it moves in different spaces in relation to the objects and persons in my environment.

III. SOCIAL INTERACTION: I move to relate to others.

E. Communication: I move to share ideas and feelings with others.
1. Expression. I move to share ideas and feelings.
2. Attractiveness. I move to enhance and improve my personal attractiveness.

F. Group Interaction: I move to function in harmony with others.
1. Teamwork. I move to cooperate with others in pursuing common movement goals.
2. Leadership. I move to motivate and to lead group members to achieve common goals.
3. Competition. I move to compete for individual and group goals.

G. Cultural Involvement: I move to take part in movement activities which constitute an important part of my society.
1. Participation. I move to take part in activities of my society, peer group or friends, because I enjoy participating with others in the same activity.
2. Cultural understanding. I move to understand, respect and strengthen the cultural heritage.
3. Movement appreciation. I move to become knowledgeable and appreciative of sports and expressive movement forms.

APPENDIX B

PERSONAL PURPOSES AND MEANING IN MOVEMENT INVENTORY

TRIPLE P PROJECT

PLANNING FOR PERSONAL PERFORMANCE

Student input is central to planning and designing courses in a Basic Physical Education program. We are interested in your purposes for engaging in movement activities. Your responses will be kept confidential. Thank you for taking the time to respond thoughtfully to this questionnaire.

On the answer sheet provided please supply the following information:

1. Sex: Female (1) or Male (2)
2. Age: (1) 18, or under (5) 22
   (2) 19 (6) 23
   (3) 20 (7) 24
   (4) 21 (8) 25, or over
3. Ethnic Origin: (1) American Indian (4) Hispanic
   (2) Asian (5) White
   (3) Black

PERSONAL PURPOSES AND MEANINGS IN MOVEMENT INVENTORY

INSTRUCTIONS

Evaluate the following purposes as if they were your reason(s) for participating in movement activities. Each item in this inventory will be scored on a scale from one to nine. Do not use the 0 on your answer sheet. Darken the number on the answer sheet which corresponds to your choice on the scale. Save Paper! Please do not make any marks on the question form.

Example: I engage in movement activities to have fun.

Not Meaningful 1 2 3 4 5 6 7 8 9 Very Meaningful

If you feel that this purpose is very meaningful to you, darken number 9 on the answer sheet.

If you feel that this purpose is not meaningful at all to you, darken number 1 on the answer sheet.

Feel free to use the whole scale, numbers 1 through 9.

(OVER. . .)

Not Meaningful 1 2 3 4 5 6 7 8 9 Very Meaningful

4. I engage in movement activities to release tension and frustration.

5. I engage in movement activities to enhance and improve my personal (physical/mental/spiritual) attractiveness.

6. I engage in movement activities to discover what I can and cannot do thus learning more about myself and my abilities and increasing my self-understanding.

7. I engage in movement activities to motivate and influence group members to achieve common goals.

8. I engage in movement activities to have the possibility of experiencing extraordinary states (becoming one with my environment, euphoria, exhilaration) and to be more open to the possibility of "peak" moments.

9. I engage in movement activities to take part in activities of my society, peer group or friends because I enjoy affiliating with others in the same activity.

10. I engage in movement activities to acquire skill in throwing, catching, striking and moving heavy objects.

11. I engage in movement activities to cooperate with others in pursuing common movement goals.

12. I engage in movement activities to relate myself in three dimensional space, i.e. to develop an image of my body's size and weight, what positions it assumes and how it moves in different spaces.

13. I engage in movement activities to maintain and improve my flexibility, agility, balance, posture and alignment.

14. I engage in movement activities because it feels good, is enjoyable and such a feeling is a source of pleasure for me.

15. I engage in movement activities with others to compete for individual or group goals.

16. I engage in movement activities to test my own abilities, prowess, courage.

Not Meaningful 1 2 3 4 5 6 7 8 9 Very Meaningful

17. I engage in movement activities to develop and/or maintain the abilities of my heart, lungs and blood transporting systems for better delivery of oxygen and nutrients to all parts of my body.

18. I engage in movement activities to facilitate physical/mental/spiritual synthesis and to experience myself as a total person.

19. I engage in movement activities to maintain and develop my coordination, speed and skill in motor performance.

20. I engage in movement activities to communicate my ideas and feelings with others.

21. I engage in movement activities to acquire and maintain an appropriate body weight for my age and size.

PROGRAM INVENTORY

22. The number of Basic Physical Education classes, including this class, taken at this institution.

1, 2, 3, 4, 5 or more

23. The number of Basic Physical Education credits, including this class, taken at this and other institutions.

1, 2, 3, 4, 5 or more

24. Year in school: (1) Freshman (4) Senior
(2) Sophomore (5) Graduate
(3) Junior (6) Unclassified

25. When I participate in movement activities I consider myself.

Very Uncoordinated 1 2 3 4 5 6 7 8 9 Very Coordinated

The following questions are related to the Basic Physical Education Program at your institution. Each item on this part of the inventory will be scored on a scale of one to nine. Do not use 0. Darken the number on the answer sheet which corresponds to your choice on the scale.

(OVER. . .)

All responses are relative to this scale.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

26.

27.

28.

29.

30.

31.

32.

33.

34.

35.

36.

37.

38.

39.

40.

Triple P Project
Division of Health, Physical Education, Recreation and Dance
University of Georgia
Athens, Georgia 30602
404/542-2674
Attn. Dr. A. E. Jewett

APPENDIX C

SELF-PPMMI

CLASSROOM TEACHERS' PERSONAL PURPOSES AND MEANINGS IN MOVEMENT INVENTORY*

CONDUCTED BY: Pat Akers

Davidson County Community College
April, 1983

*Adapted from the PPMMI-83 by permission.

On the answer sheet provided please supply the following information:

A. Identification Number: Write in the last six digits of your social security number. Your responses will be kept confidential.

B. Special Codes: Enter the code number for your school. You will find this number printed on your inventory packet in the upper right hand corner.

1. Age:
   (1) under 22 (3) 33-42 (5) 53-62
   (2) 23-32 (4) 43-52 (6) over 62

2. Grade taught:
   (1) 1 (3) 3 (5) 5
   (2) 2 (4) 4

3. Years of experience teaching:
   (1) 0-5 (3) 11-15 (5) 21-25
   (2) 6-10 (4) 16-20 (6) over 25

4. Preparatory courses you have had in physical education that would help you teach this subject:
   (1) none (3) two
   (2) one (4) three or more

5. Number of times per week a physical education specialist teaches your class:
   (1) once a week (4) more than three times a week
   (2) twice a week (5) not taught by a specialist
   (3) three times a week

6. Number of times per week you plan the physical education lesson:
   (1) never (3) twice (5) more than three times
   (2) once (4) three times

INSTRUCTIONS:

Evaluate the following purposes as if they were your reason(s) for participating in movement activities. Each item in this inventory will be scored on a scale from one to nine. Do not use the zero on your answer sheet. Darken the number on the answer sheet which corresponds to your choice on the scale. Please do not make any marks on the inventory.

EXAMPLE: I move to have fun.

NOT MEANINGFUL 1 2 3 4 5 6 7 8 9 VERY MEANINGFUL

If you feel that this purpose is very meaningful to you, darken #9 on your answer sheet. If you feel that this purpose is not meaningful at all to you, darken #1 on your answer sheet. Feel free to use the whole scale, #1 through #9.

NOT MEANINGFUL 1 2 3 4 5 6 7 8 9 VERY MEANINGFUL

7. I move to release tension and frustration.

8. I move to enhance and improve my personal attractiveness.

9. I move to discover what I can and cannot do thus increasing my self-understanding.

10. I move to motivate and to lead group members to achieve common goals.

11. I move to have the possibility of experiencing "peak" moments.

12. I move to take part in activities of my society, peer group or friends, because I enjoy participating with others in the same activity.

13. I move to acquire skill in such things as throwing, catching, striking, and moving heavy objects.

14. I move to cooperate with others in pursuing common movement goals.

15. I move to develop an image of my body, the positions it assumes and how it moves in different spaces in relation to the objects and persons in my environment.

16. I move to understand, respect and strengthen the cultural heritage.

17. I move to derive pleasure from movement experiences.

18. I move to acquire and maintain an appropriate body composition-- the fat-weight to lean-weight ratio.

19. I move to compete for individual or group goals.

20. I move to maintain and develop my coordination, speed and skill in motor performance.

21. I move to test my prowess and courage.

22. I move to develop and maintain circulatory and respiratory functioning.

23. I move to share ideas and feelings.

24. I move to encourage a physical-mental-spiritual unity and to experience myself as a whole person.

25. I move to develop and maintain muscular strength, tone and endurance.

26. I move to increase my energy level and to enhance the qualities of being alive.

27. I move to become knowledgeable and appreciative of sports and expressive movement forms.

28. I move to maintain my flexibility, balance, posture, and alignment.

Thank you for completing this inventory. (OVER. . .)

MOVEMENT INVENTORIES FOR CLASSROOM TEACHERS

ANSWER SHEET

A. IDENTIFICATION NUMBER: (Last six digits of your social security number)

_____ _____ _____ _____ _____ _____

B. SCHOOL CODE: _____ _____

C. SEX: _____ ENTER 1 = female 2 = male

D. INVENTORY CODE: _____ BLUE _____ YELLOW

WRITE THE NUMBER OF THE CATEGORY YOU SELECT IN THE SPACE PROVIDED:

1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

EACH STATEMENT IN THE INVENTORY WILL BE SCORED ON A SCALE FROM ONE TO NINE. PLACE THE NUMBER IN THE BLANK PROVIDED WHICH CORRESPONDS TO YOUR CHOICE ON THE SCALE.

NOT MEANINGFUL 1 2 3 4 5 6 7 8 9 VERY MEANINGFUL

7. _____ 18. _____
8. _____ 19. _____
9. _____ 20. _____
10. _____ 21. _____
11. _____ 22. _____
12. _____ 23. _____
13. _____ 24. _____
14. _____ 25. _____
15. _____ 26. _____
16. _____ 27. _____
17. _____ 28. _____

APPENDIX D

CHILD-PPMMI

ELEMENTARY CLASSRCOM TEACHERS' PERCEPTIONS CF THE PERSONAL PURPOSES AND MEANINGS IN MOVEMENT FCR ELEMENTARY SCHOOL CHILDREN*

CONDUCTED BY: Pat Akers

Davidson County Community College
April, 1983

*Adapted from the PPMH-83 by permission.

On the answer sheet provided please supply the following information:

A. Identification Number: Write in the last six digits of your social security number. Your responses will be kept confidential.

B. Special Codes: Enter the code number for your school. You will find this number printed on your inventory packet in the upper right hand corner.

1. Age:
   (1) under 22 (3) 33-42 (5) 53-62
   (2) 23-32 (4) 43-52 (6) over 62

2. Grade taught:
   (1) 1 (3) 3 (5) 5
   (2) 2 (4) 4

3. Years of experience teaching:
   (1) 0-5 (3) 11-15 (5) 21-25
   (2) 6-10 (4) 16-20 (6) over 25

4. Preparatory courses you have had in physical education that would help you teach this subject:
   (1) none (3) two
   (2) one (4) three or more

5. Number of times per week a physical education specialist teaches your class:
   (1) once a week (4) more than three times a week
   (2) twice a week (5) not taught by a specialist
   (3) three times a week

6. Number of times per week you plan the physical education lesson:
   (1) never (3) twice (5) more than three
   (2) once (4) three times times

INSTRUCTIONS:

When deciding which activities to teach children in the physical education curriculum, you must first select objectives suitable for your age child. Respond to each statement as if you were considering this purpose as an objective in teaching physical education to the age child that you teach. Each item in this inventory will be scored on a scale from one to nine. Do not use the zero on your answer sheet. Darken the number on the answer sheet which corresponds to your choice on the scale. Please do not make any marks on the inventory.

EXAMPLE: Children move to have fun.

NOT MEANINGFUL 1 2 3 4 5 6 7 8 9 VERY MEANINGFUL

If you feel that this purpose is very meaningful to the child, darken #9 on your answer sheet. If you feel that this purpose is not meaningful at all to the child, darken #1 on your answer sheet. Feel free to use the whole scale, #1 through #9.

NOT MEANINGFUL 1 2 3 4 5 6 7 8 9 VERY MEANINGFUL

7. Children move to release tension and frustration.

8. Children move to enhance and improve their personal attractiveness.

9. Children move to discover what they can and cannot do thus increasing their self-understanding.

10. Children move to motivate and to lead group members to achieve common goals.

11. Children move to have the possibility of experiencing "peak" moments.

12. Children move to take part in activities of their society, peer group or friends, because they enjoy participating with others in the same activity.

13. Children move to acquire skill in such things as throwing, catching, striking, and moving heavy objects.

14. Children move to cooperate with others in pursuing common movement goals.

15. Children move to develop an image of their bodies, the positions they assume and how they move in different spaces in relation to the objects and persons in their environment.

16. Children move to understand, respect and strengthen the cultural heritage.

17. Children move to derive pleasure from movement experiences.

18. Children move to acquire and maintain an appropriate body composition--the fat-weight to lean-weight ratio.

19. Children move to compete for individual or group goals.

20. Children move to maintain and develop their coordination, speed and skill in motor performance.

21. Children move to test their prowess and courage.

22. Children move to develop and maintain circulatory and respiratory functioning.

23. Children move to share ideas and feelings.

24. Children move to encourage a physical-mental-spiritual unity and to experience themselves as a whole person.

25. Children move to develop and maintain muscular strength, tone and endurance.

26. Children move to increase their energy levels and to enhance the qualities of being alive.

27. Children move to become knowledgeable and appreciative of sports and expressive movement forms.

28. Children move to maintain their flexibility, balance, posture, and alignment.

Thank you for completing this inventory. (OVER. . .)

MOVEMENT INVENTORIES FOR CLASSROOM TEACHERS

ANSWER SHEET

A. IDENTIFICATION NUMBER: (Last six digits of your social security number)

____ ____ ____ ____ ____ ____

B. SCHOOL CODE: C. SEX: ENTER 1 = female

____ ____ ____ 2 = male

D. INVENTORY CODE: _____ BLUE _____ YELLOW

WRITE THE NUMBER OF THE CATEGORY YOU SELECT IN THE SPACE PROVIDED:

1. _____ 4. _____

2. _____ 5. _____

3. _____ 6. _____

EACH STATEMENT IN THE INVENTORY WILL BE SCORED ON A SCALE FROM ONE TO NINE. PLACE THE NUMBER IN THE BLANK PROVIDED WHICH CORRESPONDS TO YOUR CHOICE ON THE SCALE.

NOT MEANINGFUL 1 2 3 4 5 6 7 8 9 VERY MEANINGFUL

7. _____ 18. _____

8. _____ 19. _____

9. _____ 20. _____

10. _____ 21. _____

11. _____ 22. _____

12. _____ 23. _____

13. _____ 24. _____

14. _____ 25. _____

15. _____ 26. _____

16. _____ 27. _____

17. _____ 28. _____

APPENDIX E

PILOT STUDY PERMISSION MATERIALS

Rt. 4 Box 407
Thomasville, N.C.
April 4, 1983

Dr. W. Max Walser, Associate Superintendent
Davidson County Schools
Board of Education
P.O. Box 1229
Lexington, N.C. 27292

Dear Dr. Walser,

Recently, I spoke with you on the phone concerning my request to pilot test a measurement tool that I am working on for my doctoral research. My research centers around the value orientation that elementary classroom teachers hold about the purposes of physical activity for themselves and for children. I have selected two inventories which measure value statements concerning the purposes of physical activity. I wish to administer the inventories to all female teachers in grades one, three and five. From the pilot study, I would like to secure a sample of at least 15-20 teachers in each grade level mentioned. With your permission, I wish to contact the principals in each school and explain my request. If they allow me to administer the inventories in their school, I will leave the instrument for the teachers in the selected grade levels. They will be asked to respond voluntarily and at a time and place convenient to each.

Enclosed is a sample of both inventories and the accompaning answer sheet. The inventories have been designed to minimize the time required for completion. Teachers will not be asked to use school time to complete the materials. They will be asked to complete consent forms for their own protection.

I would appreciate your approval of this project and eagerly await your reply. If I can supply any further information, please do not hesitate to get in touch with me. My school number is 249-8186, Ext. 228 and my home number is 475-8238.

Sincerely,

Pat Akers

Pat Akers
Physical Education
Instructor

APPENDIX F

PILOT STUDY RELIABILITY DATA

ELEMENTARY CLASSROOM TEACHERS'

PERSONAL PURPOSES AND MEANINGS IN MOVEMENT INVENTORY

ITEM RELIABILITY

PURPOSES	STATEMENT NUMBER	BLUE INVENTORY (self-related)		YELLOW INVENTORY (child-related)	
INDIVIDUAL DEVELOPMENT		one-way	two-way	one-way	two-way
Weight control-body fatness	18	.650	.645	.809	.823
Movement Efficiency	20	.826	.821	.931	.929
Circulatory-Respiratory Eff.	22	.843	.839	.888	.886
Musculo-Skeletal Efficiency	25	.750	.753	.876	.873
Mechanical Efficiency	28	.881	.878	.840	.842
Catharsis	7	.668	.660	.863	.859
Self-knowledge	9	.762	.763	.818	.812
Self-transcendence	11	.678	.677	.860	.862
Joy of Movement	17	.783	.777	.925	.924
Challenge	21	.803	.812	.893	.890
Self-integration	24	.816	.814	.943	.944
Aliveness	26	.836	.839	.882	.880
ENVIRONMENTAL COPING					
Object Manipulation	13	.718	.712	.953	.952
Spatial Orientation	15	.795	.789	.826	.821
SOCIAL INTERACTION					
Attractiveness	8	.816	.814	.613	.621
Expression	23	.787	.781	.906	.903
Leadership	10	.766	.759	.636	.678
Teamwork	14	.780	.776	.917	.915
Competition	19	.736	.728	.897	.894
Participation	12	.325	.569	.486	.713
Cultural Understanding	16	.774	.768	.876	.874
Movement Appreciation	27	.859	.858	.877	.870

APPENDIX G

HUMAN SUBJECTS APPROVAL

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
SCHOOL OF HEALTH, PHYSICAL EDUCATION & RECREATION

SCHOOL REVIEW COMMITTEE

PRINCIPAL INVESTIGATOR'S PROJECT OUTLINE FORM

Name of Principal Investigator PATRICIA ANN AKERS

Division within HPER PHYSICAL EDUCATION

Title of Proposed Project VALUE ORIENTATIONS OF ELEMENTARY CLASSROOM TEACHERS TOWARD PHYSICAL ACTIVITY FOR THEMSELVES AND FOR THE CHILDREN THEY TEACH.

Proposed Starting Date SEPTEMBER 19, 1983 Duration November 17, 1983

Estimated Number of Human Subjects Involved in Project PHASE ONE: 150; PHASE TWO: 8-10.

I. Characteristics of Subjects (check as many boxes as appropriate).

___ Minors ___ Mentally Retarted ___ University Students

X Adults ___ Pregnant Women ___ Secondary School Pupils

___ Prisoners ___ Legally Incompetent ___ Elementary School Pupils

___ Others (Specify) ELEMENTARY CLASSROOM TEACHERS.

II. Consent and Withdrawal Procedures

A. Consent obtained from: Individual X, Institution X, Parent or Legal Guardian ____, Other (Specify) _____

B. Type of Consent: Written (attach copy of consent statement) X
Oral _____ (explain reason for not using written form and attach a verbatim statement of the oral request to the subject).

C. Subjects are informed of withdrawal privileges (attach copy of statement).

Use the back of this page and additional sheets, as necessary, to respond to the remaining portions of this form.

III. Risks: Briefly describe the risks (physical, psychological, social) to the subjects, and indicate the degree of risk involved in each case.

IV. Benefits: Briefly describe the benefits (physical, psychological, social) to the subjects and/or humankind in general.

V. Methodology/Procedures

A. Briefly describe the methods used for selection of subjects/ participants.

III. RISKS:

Risks involved are minimal because results will be held in confidence and not related to the evaluation of the teachers' work.

IV. BENIFITS:

By being explosed to the purpose statements, elementary classroom teachers may become more aware of what their own value orientations are toward physical activity.

V. METHODOLOGY/PROCEDURES:

I. PHASE ONE: ADMINISTRATION OF INVENTORIES

A. SELECTION OF SUBJECTS

1. High Point City school teacher in grades K-5 will be asked to participate.
2. All teachers will be asked to participate on a voluntary basis.

B. PROCEDURES

1. Permission will be obtained from the superintendent's office .
2. Permission will be obtained from each principal to distribute the inventories in thier school.
3. Inventory I will be given one day and Inventory II given after a minimum of three days.
4. Names will not be requested. Teachers will only be identified by the last six digits of their social security number (in order to match up the two inventories for data processing).

II. PHASE TWO: THE INTERVIEW PHASE

A. SELECTION OF CASE STUDY SCHOOL

1. One school will be selected as the case study school with the help of the supervisor of physical education. Criteria for school selection can be found in the proposal.
2. The investigator will observe the school setting for one week to get a feel of the teaching environment.

B. SELECTION OF CASE STUDY TEACHERS

1. Eight to ten teachers will be chosen from the same school to be the case study teachers.
2. Criteria used to select these teachers is dependent on the results of the testing in PHASE ONE.

C. INTERVIEWS

1. Interviews will be conducted with each case study teacher.
2. Interviews will last from one hour to one hour and thirty minutes.

B. Briefly describe all other procedures to be followed in carrying out the project.

C. Attach a copy of the proposal you are filing (Graduate School, Agency, etc.) and a copy of orientation information to subjects. Include questionnaires, interview questions, tests, and other similar materials.

VI. Agreements: By signing this form, the principal investigator agrees to the following:

A. To conform to the policies, principles, procedures and guidelines established by the HPER School Review Committee (SRC).

B. To supply the SRC with documentation of selection procedures and informed consent procedures.

C. To inform the SRC of any changes in procedures which involve human subjects, giving sufficient time to review such changes before they are implemented.

D. To provide the SRC with any progress reports it may request.

Date Sept. 1, 1983 Signature Pat Akers

APPENDIX H

HIGH POINT CITY SCHOOLS PERMISSION MATERIALS

Rt. 4 Box 407
Thomasville, N. C.
July, 25, 1983

Dr. William Anderson
Associate Superintendent of Schools
High Point City Schools
100 English Road
High Point , N. C.

Dear Dr. Anderson,

Recently, I spoke with you on the phone concerning my request to collect data for my dissertation in the High Point City School system. My research centers around the value orientations that elementary classroom teachers hold about the purposes of physical activity for themselves and for the children they teach. The study will be conducted in two phases. Phase One consists of administering two inventories to all elementary classroom teachers in grades K-5. One hundred thirty to one hundred-fifty teacher are desired as the sample. Phase Two will include selection of a case study school. All teachers in that school will be asked to participate in the indepth interviewing phase. At least one teacher from each grade level is desired, but all teachers who agree to praticipate will be interviewed.

Completion of the inventories will take each teacher about fifteen minutes per inventory. The inventories will have to be given at least three days apart. The protocol for administering the inventories will be decided upon after talking with the individual principals. Each interview in Phase Two will take approximately one hour. Teachers who participate in the interviews will be paid a ten dollar honorarium. I would like to administer the inventories the week of September 19th and begin the interviewing the first week in October. If you feel these dates are too close to the opening of school, they can be adjusted. After selection of the case study school, I would also like permission to visit the school for observation periods of an hour, three times a week for one week. This observation period will allow me to get a feel of the actual school setting.

Enclosed is a condensed version of the proposal, a copy of the two inventories and a copy of the proposed interview questions.

I appreciate your consideration of this request. If I can supply any further information, please call me at 475-8238. I will be eagerly awaiting your reply.

Sincerely,
Pat Akers
Pat Akers
Physical Education
Instructor--D.C.C.C.

APPENDIX I

TEACHER LETTER AND CONSENT FORM

September 6, 1983

Dear Classroom Teacher,

My name is Pat Akers. I teach at Davidson County Community College and I am also a doctoral student in Physical Education at UNC-G. Dr. Anderson has given me permission to seek your help in completing my research for my dissertation. My research centers around the values elementary classroom teachers hold about the purposes of physical activity for themselves and for children. I have selected two inventories which measure these value orientations. Inventory I (blue) will measure how classroom teachers value movement for themselves. Inventory II (yellow) will measure how classroom teachers value movement for children. Each inventory should take about fifteen minutes to complete. Your physical education aide will administer the inventories.

Each inventory will include statements about the purposes of physical activity. You will be asked to rate each statement on a scale of 1-9. A rating of <u>one</u> will indicate that this purpose for moving has very little meaning for you. A rating of <u>nine</u> would indicate that the purpose statement is very meaningful to you. Feel free to use the entire scale to express your feelings. When taking the inventory to measure the values that you hold about movement for yourself, the work <u>"movement"</u> has a general connotation. The statements can refer to any movement or physical activity that has meaning for you. When taking the inventory to measure the values that you hold about movement for children, the word <u>"movement"</u> is used to mean the purpose you choose as an objective in teaching physical education to the children in your class.

All responses will be kept confidential. I am asking for the last six digits in your social security number only to match up both inventories for data analysis. Before you take the inventories you will be given a consent form to sign for your projection. Should you have any questions about the study feel free to contact me at school, 475-7181 (Ext. 228) or at home 475-8238.

I would really appreciate your participating in this study. Each inventory will only take 15 minutes of your time. Administration of the inventories will take place during the week of September 15-22. I hope I can count on you for your support. Results of the study will be sent to your principal when the dissertation is completed.

Sincerely,

Pat Akers

Pat Akers

Sept. 28, 1983

Dear Classroom Teacher,

Recently, you completed two inventories, a blue one and a yellow one, which measured your values about physical activity for yourself and for the children you teach. Your responses to these inventories helped me to complete Phase One of my dissertation research.

Your school has been chosen for Phase Two of the research study. In Phase Two, I wish to interview teachers to allow them to explain the responses they gave on the inventories. I desperately need your cooperation in this phase to complete my research.

During Phase Two, teachers will be interviewed concerning their responses to the inventories. The questions will address their attitude toward physical activity for themselves and for the children they teach. Each interview will be taped and content analyzed by me. After the analysis, the tapes will be erased. Each teacher will be paid $10 for the interview which will be scheduled at their convenience.

If you would agree to participate in the interview phase, please sign the form at the bottom of the page and return it to your principal by Thursday, Oct. 6. I will contact you to set up a time for the interview. I would certainly appreciate your time and consideration.

Sincerely,

Pat Akers

Pat Akers

I agree to participate in the interview phase of the research.

NAME

PHONE

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
SCHOOL OF HEALTH, PHYSICAL EDUCATION & RECREATION

SCHOOL REVIEW COMMITTEE

INFORMED CONSENT FORM *

I understand that the purpose of this study/project is

1. to identify the values that classroom teachers hold about the purposes of physical activity for themselves and for children.

I confirm that my participation is entirely voluntary. No coercion of any kind has been used to obtain my cooperation.

I understand that I may withdraw my consent and terminate my participation at any time during the project.

I have been informed of the procedures that will be used in the project and understand what will be required of me as a subject.

I understand that all of my responses, written/oral/task, will remain completely anonymous.

I understand that a summary of the results of the project will be made available to me at the completion of the study if I so request.

I wish to give my voluntary cooperation as a participant.

Signature

Address

Date

*Adopted from L.F. Locke and W.W. Spirduso. Proposals that work. New York: Teachers College, Columbia University, 1976, p. 237.

Approved 3/78

APPENDIX J

INVENTORY ADMINISTRATION PROTOCOL

INSTRUCTIONS FOR THE ADMINISTRATION

OF THE MOVEMENT INVENTORIES

1. Purpose of the Inventory:

   This inventory has been designed to assess your attitude toward value statements made about the purposes of physical activity. Your responses will be kept confidential and your cooperation is appreciated.

2. Purpose and Completion of the Consent Form:

   The consent form that you received is for your own protection and to assure that you know what the reasons are for your participation. Please read and complete the form. I will collect it as I distribute the inventory and answer sheet.

3. Disbribution of the Inventory and Answer Sheet:

   You may use either a pen or a pencil to complete the inventory. Do not write on the blue or the yellow inventory.

   Find section A on the answer sheet. Write the last six digits of of your social security number in the blanks provided.

   Find section B on your answer sheet, enter the school code. The code for _____ is _____.

   Find section C. Enter a 1 if you are female or a 2 if you are male.

   Find section D. Circle the color of the inventory.

4. Special Information

   Questions 1 - 6 ask for special information. Write the nubmer of the category you select in the space provided.

   note: Question #2. If you teach a combination grade, enter the grade taught to be the one in which you have the most children.

   note: Question # 5. If the specialist teaches your class twice one week and three times the next, enter the number for twice a week.

5. The Inventory Statements

   Questions 7 - 28 represent purposes of physical activity. Each statement will be scored on a scale from one to nine. Read the instruction at the bottom of page 2 and begin the test. Since I have changed answer sheet you will now only have to place the number on the scale you think represents your feeling and place it in the blank provided.

6. A blank sheet is provided for any comments you wish to make about the inventory.

SCHOOL CODES

BRENTWOOD	=	01
FAIRVIEW	=	02
JOHNSON ST.	=	03
KIRKMAN	=	04
NORTHWOOD	=	05
MONTLIEU	=	06
PARKVIEW	=	07
OAK HILL	=	08
OAK VIEW	=	09
SHADYBROOK	=	10

SPECIAL INSTRUCTIONS:

1. Collect all inventories and answer sheets.
2. Place the yellow inventories and answer sheets in the envelope labeled with the school name and the code YELLOW.
3. Follow the same procedure with the Blue inventories. It makes no difference which inventory you give first. I would suggest just giving the yellow one first.
4. When complete, take the packet and give it to your principal.
5. I will pick up both packets on Friday, Sept. 23, after noon.

THANK YOU FOR YOUR HELP!!!

PAT AKERS

APPENDIX K

INTERVIEW QUESTION FORMAT

FORMAT FOR INTERVIEW QUESTIONS

I. Warming-up Period

A. Introduction of myself to include my background in working with classroom teachers.

B. Her background.

II. Her Personal Meaning For Participation in Physical Activity

A. What type of physical activity do you enjoy?

B. How often do you have time to participate?

C. If you had more time what would you like to do?

D. What types of benefits do you feel you get from the activities you do and enjoy?

E. Looking at your PPMMI profile, we see three areas into which the purpose statements from the inventories are categorized: INDIVIDUAL DEVELOPMENT, ENVIRONMENTAL COPING, AND SOCIAL INTERACTION. Your highest ratings were in the area of _____. How do you explain this? Your lowest ratings are in the area of_____. Why do you think this happened?

F. Additional questions which will be determined by the individual's profile will be asked.

III. Warming-up Period to Talk about Physical Activity for Children

A. How often do you feel children need physical activity during the school day?

B. What environmental factors do you feel affect your teaching physical activities to children?

C. Let's talk about the goals that you have listed as being important objectives for physical activity for children.

IV. PPMMI for Children

A. Let's look at the profile from the PPMMI for children. The purposes you rated high fell into the category of_____. Can you explain this? The purposes rated the lowest were in the area of _____. Why do you think this happened?

B. As you look at the profile, star the statements you see three spaces or more between how you rated the statement for yourself and how you rated the statement as an objective for the child. Talk about why you feel the differences in those ratings exist. Which differences do you feel are appropriate? Why?

C. The remaining questions are determined by the individual's profiles and the goals they listed initially.

APPENDIX L

INTERVIEW TEACHERS' PROFILES

GROUP ONE: TEACHER A's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]								S C	
Movement efficiency	20									S C
Circulo-respiratory	22								S	C
Musculo-skeletal	25								S	C
Mechanical efficiency	28							S		C
Catharsis	7								S C	
Self-knowledge	9									S C
Self-transcendence	11			S						C
Joy of Movement	17							S		C
Challenge	21			S			C			
Self-integration	24						S		C	
Aliveness	26							S	C	
II. ENVIRONMENTAL COPING										
Object manipulation	13									S C
Spatial orientation	15								S	C
III. SOCIAL INTERACTION										
Attractiveness	8					C		S		
Expression	23								S C	
Leadership	10							S	C	
Teamwork	14								C	S
Competition	19			S					C	
Participation	12								S	C
Cultural understanding	16		C	S						
Movement appreciation	27		C				S			

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP ONE: TEACHER B's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]						C			S
Movement efficiency	20									S C
Circulo-respiratory	22									S C
Musculo-skeletal	25							C		S
Mechanical efficiency	28									S C
Catharsis	7						S	C		
Self-knowledge	9								S	C
Self-transcendence	11	S C								
Joy of Movement	17						C			S
Challenge	21			S	C					
Self-integration	24									S C
Aliveness	26									S C
II. ENVIRONMENTAL COPING										
Object manipulation	13							S		C
Spatial orientation	15			S				C		
III. SOCIAL INTERACTION										
Attractiveness	8	S						C		
Expression	23					S	C			
Leadership	10									S C
Teamwork	14								S	C
Competition	19								C	S
Participation	12					C		S		
Cultural understanding	16		C							S
Movement appreciation	27					S	C			

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP ONE: TEACHER P's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]							S		C
Movement efficiency	20							S		C
Circulo-respiratory	22							S		C
Musculo-skeletal	25							S		C
Mechanical efficiency	28							S		C
Catharsis	7								S C	
Self-knowledge	9							S	C	
Self-transcendence	11					S				C
Joy of Movement	17									S C
Challenge	21							S C		
Self-integration	24							S		C
Aliveness	26							S		C
II. ENVIRONMENTAL COPING										
Object manipulation	13					C		S		
Spatial orientation	15					S			C	
III. SOCIAL INTERACTION										
Attractiveness	8								S C	
Expression	23							S	C	
Leadership	10							S	C	
Teamwork	14							S C		
Competition	19							S C		
Participation	12					S				C
Cultural understanding	16							S		C
Movement appreciation	27							S		C

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP ONE: TEACHER I 's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]			C				S		
Movement efficiency	20							C	S	
Circulo-respiratory	22			C					S	
Musculo-skeletal	25							C	S	
Mechanical efficiency	28						C		S	
Catharsis	7							C S		
Self-knowledge	9			S				C		
Self-transcendence	11				C			S		
Joy of Movement	17							S	C	
Challenge	21			S				C		
Self-integration	24							C	S	
Aliveness	26							C	S	
II. ENVIRONMENTAL COPING										
Object manipulation	13		S					C		
Spatial orientation	15						C	S		
III. SOCIAL INTERACTION										
Attractiveness	8							C	S	
Expression	23					S		C		
Leadership	10			S	C					
Teamwork	14					C		S		
Competition	19					S		C		
Participation	12							S	C	
Cultural understanding	16	S					C			
Movement appreciation	27					S	C			

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP ONE: TEACHER J 's INVENTORY PROFILE

PURPOSES		RATINGS 1.	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]				C					S
Movement efficiency	20									S C
Circulo-respiratory	22								C	S
Musculo-skeletal	25				C					S
Mechanical efficiency	28					C				S
Catharsis	7				C		S			
Self-knowledge	9	C								S
Self-transcendence	11					C				S
Joy of Movement	17									S C
Challenge	21	S C								
Self-integration	24							S	C	
Aliveness	26									S C
II. ENVIRONMENTAL COPING										
Object manipulation	13		S							C
Spatial orientation	15									S C
III. SOCIAL INTERACTION										
Attractiveness	8	C								S
Expression	23			S					C	
Leadership	10							C S		
Teamwork	14						S			C
Competition	19				S					C
Participation	12								S	C
Cultural understanding	16	S			C					·
Movement appreciation	27			S C						

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP TWO: TEACHER D's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]		S			C				
Movement efficiency	20			S			C			
Circulo-respiratory	22			S		C				
Musculo-skeletal	25				S		C			
Mechanical efficiency	28					S	C			
Catharsis	7						S	C		
Self-knowledge	9	S				C				
Self-transcendence	11					S			C	
Joy of Movement	17					SC				
Challenge	21		S					C		
Self-integration	24					S		C		
Aliveness	26					S	C			
II. ENVIRONMENTAL COPING										
Object manipulation	13					S		C		
Spatial orientation	15				C	S				
III. SOCIAL INTERACTION										
Attractiveness	8			SC						
Expression	23				S					C
Leadership	10				C		S			
Teamwork	14					SC				
Competition	19					S			C	
Participation	12						S	C		
Cultural understanding	16			S	C					
Movement appreciation	27					S	C			

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP THREE: TEACHERS E's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]					C			S	
Movement efficiency	20						S		C	
Circulo-respiratory	22					C				S
Musculo-skeletal	25					S			C	
Mechanical efficiency	28					S		C		
Catharsis	7								S	C
Self-knowledge	9					S			C	
Self-transcendence	11					S				C
Joy of Movement	17						C			S
Challenge	21				S	C				
Self-integration	24					SC				
Aliveness	26					S		C		
II. ENVIRONMENTAL COPING										
Object manipulation	13				S					C
Spatial orientation	15					SC				
III. SOCIAL INTERACTION										
Attractiveness	8								SC	
Expression	23					SC				
Leadership	10					S			C	
Teamwork	14				S				C	
Competition	19							S	C	
Participation	12					S			C	
Cultural understanding	16					C			S	
Movement appreciation	27					S		C		

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP THREE: TEACHERS G's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]						C		S	
Movement efficiency	20							C S		
Circulo-respiratory	22							C	S	
Musculo-skeletal	25						S		C	
Mechanical efficiency	28							S	C	
Catharsis	7						S	C		
Self-knowledge	9					S	C			
Self-transcendence	11					S C				
Joy of Movement	17							S	C	
Challenge	21					S		C		
Self-integration	24						C	S		
Aliveness	26						S	C		
II. ENVIRONMENTAL COPING										
Object manipulation	13				S				C	
Spatial orientation	15						S	C		
III. SOCIAL INTERACTION										
Attractiveness	8				C			S		
Expression	23						S C			
Leadership	10				S C					
Teamwork	14						S	C		
Competition	19						S		C	
Participation	12							S C		
Cultural understanding	16			C			S			
Movement appreciation	27						S	C		

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP FOUR: TEACHER C's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]		S				C			
Movement efficiency	20			S						C
Circulo-respiratory	22						S		C	
Musculo-skeletal	25				S					C
Mechanical efficiency	28				S					C
Catharsis	7									SC
Self-knowledge	9		S							C
Self-transcendence	11					S			C	
Joy of Movement	17			S					C	
Challenge	21	S								C
Self-integration	24						S	C		
Aliveness	26				S					C
II. ENVIRONMENTAL COPING										
Object manipulation	13								SC	
Spatial orientation	15			S			C			
III. SOCIAL INTERACTION										
Attractiveness	8	S					C			
Expression	23						S			C
Leadership	10					C			S	
Teamwork	14				S		C			
Competition	19			S						C
Participation	12								S	C
Cultural understanding	16		S				C			
Movement appreciation	27		S						C	

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

GROUP FOUR: TEACHER H 's INVENTORY PROFILE

PURPOSES		RATINGS 1	2	3	4	5	6	7	8	9
I. INDIVIDUAL DEVELOPMENT										
Weight control	18[a]			S					C	
Movement efficiency	20			S					C	
Circulo-respiratory	22						S			C
Musculo-skeletal	25				S				C	
Mechanical efficiency	28					S		C		
Catharsis	7			S						C
Self-knowledge	9		S			C				
Self-transcendence	11	S			C					
Joy of Movement	17		S					C		
Challenge	21			S		C				
Self-integration	24			C	S					
Aliveness	26							SC		
II. ENVIRONMENTAL COPING										
Object manipulation	13	S						C		
Spatial orientation	15		S				C			
III. SOCIAL INTERACTION										
Attractiveness	8				S		C			
Expression	23			SC						
Leadership	10	S			C					
Teamwork	14		S			C				
Competition	19				S			C		
Participation	12			S				C		
Cultural understanding	16		SC							
Movement appreciation	27			S			C			

a = refers to question numbers on the inventories.

S = responses on the SELF-PPMMI

C = responses on the CHILD-PPMMI

APPENDIX M

SECONDARY ANALYSIS OF INTERVIEW

TEACHERS' DEMOGRAPHIC DATA

SECONDARY ANALYSIS OF DEMOGRAPHIC DATA

AGE	GRADE TAUGHT					
	K	1	2	3	4	5
23-32	8	3	3	4	9	8
33-42	5	9	10	3	6	3
43-52	1	10	5	10	3	2
53+	0	7	5	3	0	3

	YEARS OF TEACHING EXPERIENCE					
	0-5	6-10	11-15	16-20	21-25	25+
23-32	9	21	5	0	0	0
33-42	3	5	18	10	0	0
43-52	0	0	8	4	15	4
53+	0	0	4	5	2	7

	NUMBER OF PREPARATORY COURSES			
	0	1	2	3+
23-32	1	14	11	9
33-42	1	9	15	11
43-52	2	7	10	12
53+	1	3	7	7

SECONDARY ANALYSIS OF DEMOGRAPHIC DATA

GRADE TAUGHT	AGE			
	23-32	33-42	43-52	53+
K	3	9	10	7
1	3	10	5	5
2	4	3	10	3
3	9	6	3	0
4	8	2	3	3
5	8	5	1	0

	YEARS OF EXPERIENCE					
	0-5	6-10	11-15	16-20	22-25	25+
K	0	5	7	8	4	5
1	1	4	8	4	5	1
2	2	3	5	5	4	1
3	2	5	5	3	3	0
4	3	3	7	0	0	3
5	4	6	3	0	0	1

	NUMBER OF PREPARATORY COURSES			
	0	1	2	3+
K	1	6	11	11
1	0	7	7	9
2	0	4	9	7
3	3	5	3	7
4	1	7	5	3
5	0	4	6	4

SECONDARY ANALYSIS OF DEMOGRAPHIC DATA

YEARS OF EXPERIENCE	AGE			
	23-32	33-42	43-52	53+
0-5	9	3	0	0
6-10	21	5	0	0
11-15	5	18	8	4
16-20	0	10	5	5
21-25	0	0	14	2
25+	0	0	4	7

	GRADE TAUGHT					
	K	1	2	3	4	5
0-5	4	0	1	2	2	3
6-10	6	5	4	3	5	3
11-15	3	7	8	5	5	7
16-20	0	8	4	5	3	0
21-25	0	4	5	4	3	0
25+	1	5	1	1	0	3

	NUMBER OF PREPARATORY COURSES			
	0	1	2	3+
0-5	0	3	6	3
6-10	0	10	9	7
11-15	2	15	11	7
16-20	2	2	9	7
21-25	1	1	6	8
25+	0	2	2	7

SECONDARY ANALYSIS OF DEMOGRAPHIC DATA

PREPARATORY COURSES	GRADE TAUGHT					
	K	1	2	3	4	5
0	0	1	0	0	3	1
1	4	7	6	4	5	7
2	6	11	7	11	3	6
3+	4	11	9	5	7	2

	YEARS OF TEACHING EXPERIENCE					
	0-5	6-10	11-15	16-20	21-25	25+
0	0	0	2	2	1	0
1	3	10	15	2	1	2
2	6	9	11	9	6	2
3+	3	7	7	7	8	7

	AGE			
	23-32	33-42	43-52	53+
0	1	1	2	1
1	14	9	7	3
2	12	15	10	7
3+	8	11	12	7